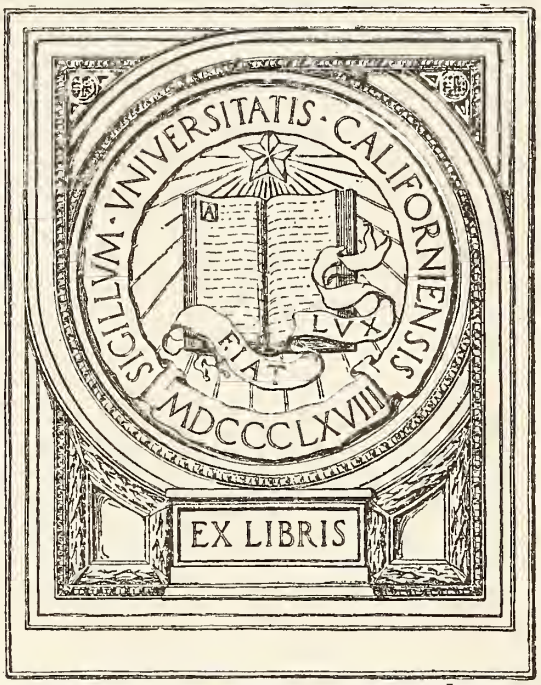
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FREDERICK C. WARNSHUIS, M. D., F. A. C. S.
EDITOR

GRAND RAPIDS, MICHIGAN

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Original Articles

Addresses Delivered at the Dedication Ceremony University Hospital, Ann Arbor, Nov. 19th, 1925

EDITOR'S NOTE: *We are privileged to publish and so impart to our members the following addresses delivered by invited guests at the dedication of the University Hospital. In our February issue we will publish the addresses delivered on the second evening of the ceremonies. The occasion was an epoch-making one for the University and the medical men of Michigan. As such it is fitting that this permanent record be made in our archives.*

THE EVOLUTION OF CLINICAL TEACHING IN THE UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

VICTOR C. VAUGHAN, M. D.,
DETROIT, MICHIGAN

There were at least three men on the original Board of Regents which organized the work of the University in 1837 who were fully competent for the task imposed upon them. These were Governor Stevens Mason, Henry Schoolcraft and Zina Pitcher. It is to be assumed that Governor Mason, who came from Virginia, was fully conversant with the plans which Thomas Jefferson had developed for the organization of the University of Virginia. Henry Schoolcraft was better acquainted with the flora and fauna of the Lake region than any other man of his time. In this work Zina Pitcher was Schoolcraft's assistant and right hand man. That science was appreciated by these men is shown by the fact that the first appointments made by the Board were Asa Gray, the great botanist, and Douglas Houghton, then in charge of the geology of this region. It is true that neither Gray nor Houghton ever gave instruction in the University, but Gray, with an appropriation of $10,000 from the Board of Regents, was sent to Europe to collect scientific books and specimens in European botany, while Houghton made collections of geological specimens and minerals for the museum. When Gray resigned in 1842 and Houghton died in 1844, Abram Sager and Silas Douglas were appointed to fill their positions. Both of these men were fully competent to inaugurate the work planned by the Board of Regents.

With Sager and Douglas on the original faculty of the University, and Zina Pitcher the strongest man on the Board of Regents, it is not strange that the Medical School was the first professional department established. These men, however, were aided by an unexpected but very strong ally. One cold, snowy February day in the late forties, there arrived in Ann Arbor a young man who was to become a tower of strength to Sager and Douglas in their efforts to provide for a medical school. This newcomer, in my opinion, was inferior to both Sager and Douglas, certainly to the former, in both native and acquired ability in scientific work; but he had a strong personality and a genius for organization and constructive work. While a student in a medical school at Geneva, New York, he read about the organization of the University of Michigan and the provision that a medical department would sooner or later be attached to this institution. Immediately on receiving his medical diploma he started for Ann Arbor, carrying in his grip several dissecting cases, and among his grosser impedimenta a box of suspicious size and shape and unmarked content. On arriving in Ann Arbor he hung out his shingle, offering his surgical skill to the people, and more discreetly he let it be known to the University students that he was prepared to initiate any of them who might have the profession of medicine in view into the mysteries of the structure of the hu-

man body, in his back office after a certain afternoon hour. This stranger was soon recognized as a most desirable addition to the small group of intellectuals then constituting the faculty and student body of the University. There is no record of his surgical success as a private practitioner, but his class in anatomy was soon in a flourishing condition and numbered among its students such men as Edmund Andrews and Robert Kedzie.

This young man from New York was Moses Gunn, and was a most striking figure—one which would attract attention on the street, in an assembly, or at a social function. He was more than six feet tall, spare and muscular, with deep blue eyes, reddish hair and beard which he wore "a la Burnside." He was generally clothed in a Prince Albert coat, high hat, white vest and striped trousers. Pending from his neck was a long, slender, gold watch chain. His auburn hair hung about his neck in curls. In fact, if Moses Gunn could now appear on this platform, the universal question would be, "What old mountebank is that?"

No doubt urged by Sager and Douglas, with Gunn's outside help, the Board of Regents in 1847 appointed a committee with Dr. Pitcher, of the Board of Regents, as Chairman, whose duty it became to consider the expediency of organizing a medical department. In 1849, this committee made a favorable report, going into detail concerning needed buildings, the selection of a faculty entrance requirements, length and character of courses, and other details. Sager and Douglas were transferred from the literary faculty and Gunn was made Professor of Anatomy and Surgery. On the first Wednesday in October, 1850, the medical department was opened by an address by Dean Sager. Thus the school was begun, with nothing to occupy the time and energy of the students save lectures, quizzes and a short course in anatomy. In fact, this schedule constituted the curriculum of all medical schools in this country at that time. Fortunately, there were two men on the original faculty whose foresight and wisdom did not permit the school to remain in this primitive condition. They were Doctors Douglas and Gunn. The former founded and began laboratory instruction in chemistry before the opening of the medical school. I will have nothing further to do with the laboratory development of the school tonight. Suffice it to say that laboratory instruction grew by leaps and bounds, and soon it came to pass that the medical school of the University of Michigan was recognized throughout the country as giving the best laboratory instruction to medical students to be found anywhere in the land.

In 1854, there came to the school two great men——one was Corydon L. Ford, as Professor of Anatomy; and the other was Alonzo B. Palmer, as Professor of materia medica, therapeutics and diseases of women and children. For 25 years the school was without a hospital. Indeed, there was nothing which, by any stretch of courtesy, could be called a hospital.

During the last century there were many great teachers of descriptive anatomy, and among these Ford's name stood near the top of the list. He never practiced medicine and was a full time teacher throughout his life. He knew anatomy, both human and comparative. He lived it and he taught it in a way that held the individual attention of every student. He not only taught the subject, but he awakened a love for it in his hearers. Among his former students I may mention such names as Lewis Pilcher, Frank Mall, William J. Mayo, Carl Huber. I sat under his spell and felt its fascination to such an extent that my thesis for the degree of Doctor of Philosophy was on an anatomical subject. Professors and students from other departments crowded the upper seats of his lecture room, and how many young men he attracted to medicine I cannot say.

The intellect and energy expended in the development of clinical facilities and teaching were largely supplied by Moses Gunn. He announced to the physicians of the state that the forenoons of Wednesday and Saturday would be devoted to consultations with them over their difficult cases. Emergency cases would be seen at any time. There would be no charge to either the doctors or their patients, so far as these consultations were conducted in the presence of students. In this way he directed the flow of the stream of sick and injured citizens of Michigan to Ann Arbor. Small, at first, this stream has grown until now (1925) it fills to overflowing the splendid University Hospital of many hundreds of beds. Indeed, it has been found necessary at times to check and regulate the incoming material. At first the number of patients brought to the consultations on Wednesday and Saturday mornings was small, but they were wisely and profitably used. The patients were often benefited, and in all instances received the best available opinion without cost. The physicians had their opinions and diagnoses confirmed or modified. The students profited by the instruction received. The doctors of the immediate vicinity did not bring their patients until the early morning of a clinic day. Those from greater distances lodged their patients in a hotel or in some boarding house. Almost without exception the physician accompanied his patient. In some instances, probably in most, the professor had seen and examined the patient before he was brought before the class. Not infrequently the professor devoted his hour, sometimes more than one, to "some of the cases we are to see Wednesday or Saturday." As a student I saw more than one surgical operation performed on a cadaver or

illustrated on a manikin or figured in detail on charts the day before I saw the operation on the patient. More frequently I saw these demonstrations the day after the operation. As a laboratory assistant in charge of physiological chemistry I frequently examined the urine, the blood, and later the stomach contents both before and after the patient's presentation to the class. I remember with what pride I demonstrated leukemic blood and urine to the class; how I found crystals of tyrosin and leucin in the urine in a case of cancer of the liver; how I showed the presence of urea in the perspiration of a man dying of kidney disease. When I came to Ann Arbor in the seventies, one of the professors' houses on the north side of the campus was known as "University Hospital." It was nothing more than a receiving home, in which patients brought in for the clinical examination could be kept before and after presentation to the class. On Wednesday and Saturday mornings students carried patients on stretchers across the campus to the medical building where the procedure I have already described was carried out.

As I have stated, Gunn and Palmer were the two men first engaged in building up clinical teaching in this school. Palmer's knowledge of medicine for that time was encyclopedic. Nor was his learning confined to medicine. He knew English literature, was devoted to Shakespeare, and graced the most intellectual society in both this country and in England. However, even surpassing his wisdom was his readiness to impart it. He delighted in talking to students, and no colleague had any difficulty in inducing him to fill an hour. From the beginning of his work as a teacher he was scientific as one could be at that time in methods of diagnosis. He drilled his students, ad nauseum, in the employment of instruments of precision; auscultation and percussion were not only his favorite hobbies, but in their use he showed great skill. He spent the greater part of two years in Europe in the preparation of his *Opus Magnum*—a two volume work on the Practice of Medicine. I say "the greater part of two years," for he had to return occasionally to give a few lectures. He would not hesitate to make two extra trips across the Atlantic when he felt that he had some information which he must impart to his students. His great work was published shortly before his death. Had it been presented fifteen years earlier it would have had wide circulation, but it came just when the new medicine was supplanting the old, and is now unknown and unused.

In the sixties there grew up in the school a young man who was to contribute largely to the development of the clinical teaching. This was the first professor of opthalmology, George E. Frothingham. He was my preceptor and I cannot speak of him without love and reverence. He began his lectures each year with a statement something like the following: "Gentlemen, I will be able to show you in the clinic throughout the year most of the diseases to which the eye is subject and many of the accidents and injuries to which it is exposed. Yes, I will show you many of these many times. I will operate before you twice a week, but you must know that you will not profit by my operations unless you know the anatomy and physiology of the organ thoroughly. I can only demonstrate fundamental principles; the world will be your clinic."

After sixteen years of Herculean effort Moses Gunn despaired of building up a large surgical clinic in Ann Arbor and resigned to accept the chair of Surgery in Rush Medical College, Chicago. He was followed by short time appointments, and among these we may find the names of William Warren Green and Theodore A. McGraw, both great surgeons. In 1872, Donald MacLean was called to the chair of Surgery. Like Gunn, he was a most fascinating man. I do not think any teacher in the University, within my time, at least, was so greatly admired by the students as was he. He captivated the hearts and won the admiration of all. He was the *beau ideal* of the young men on the benches—handsome, bold and dextrous—he conducted his clinic in a dramatic way. In speech he was somewhat hesitating, but this was not a defect. In him it was an asset, emphasizing essentials and blocking superficialities. He occupied the chair of Surgery for seventeen years, and like Gunn, he despaired of building up a great clinical school, and went to Detroit.

When Dr. MacLean resigned his position as Professor of Surgery in 1889, Dr. Charles B. de Nancrede was chosen to fill his position, and continued to render most devoted service to the University until his retirement in 1917, after which he was continued on the emeritus list until his death in 1921. I cannot over-estimate the service rendered to the University by this man. His presence was an inspiration; his diagnostic skill in both surgical and other conditions was unsurpassed; his devotion to patients has been seldom equalled; many a midnight hour, without regard to weather, found him in the hospital, skillfully, unremittingly, without thought of self, devoting all his energy to the care of his patients. On the list of the names of those who have contributed to the evolution of clinical teaching in the University of Michigan, that of Charles B. de Nancrede must have a most honorable place.

In speaking of the great and devoted surgeons in this school, I cannot omit the name of C. G. Darling, who at first as Dr. de Nancrede's assistant, and later as his immediate successor, honored his chief and himself in a splendid way. I am sure that I am not making

an over-statement when I say that the love and admiration for him awakened by Dr. Darling in his students and professional colleagues throughout the state did much to stimulate and strengthen the bond of mutual helpfulness between the school and the physicians of the state established by Moses Gunn in 1850.

From 1891 to 1908 George Dock served as Professor of the Practice of Medicine, and I am sure that in his capacity he had but few equals and no superiors. He lived in the laboratory and in the wards of the hospital. His original contributions to scientific medicine won recognition throughout the world. As a teacher he initiated his students in scientific investigations and demonstrated the value of research work in the treatment of disease. Dr. Dock was succeeded by Dr. Hewlett, who continued with us eight years.

The medical school was without a hospital for quite twenty-five years (1850-1875). It had a very inadequate wooden hospital on the campus for fifteen years (1875-1890). In 1889, the University received from the legislature an appropriation of $100,000 for the first hospital on Catherine street. This was gradually enlarged by successive legislative appropriations and by a donation from the estate of the late Dean Palmer until it grew to a capacity of nearly 400 beds. In 1915, President Hutchins and I appeared before a legislative committee and asked for an appropriation of one million dollars for a new hospital. This was granted by three annual appropriations of $350,000, thus showing the liberality of the state in providing the University Hospital. Our entrance into the war delayed the use of this appropriation. When I was discharged from the army in February, 1919, I appeared before the legislative committee, and without any argument the legislature appropriated $2,000,000, including that previously appropriated for the hospital. Just how much has been added to complete the new hospital, I do not know. Now the University has one of the best equipped hospitals in the country. I wish to say that I have always found the legislature sympathetic with hospital needs. Indeed, no request for a university appropriation has been more popular than one asked for the hospital. The people of Michigan recognize the fact that the University Hospital is one of its most beneficent institutions. There is not a village or a community in the state which has not had opportunity to witness the good results secured at the hospital. In at least one instance while I was dean, I had to check the liberality of the state toward the Hospital. In 1913, when a large appropriation was asked by the Regents for a new library building, it was suggested to me by leading members in the legislature that it would please that body if the appropriation could be diverted from the library and provided for the Hospital. I said that, while we needed a new Hospital, the University needed a library, and the Hospital could wait two years. In fact, during my Deanship, I found it far easier to get an appropriation from the legislature than to secure permission to ask for it from the Board of Regents. While I congratulate the University upon the splendid Hospital whose opening you are now celebrating, I may be permitted, I hope, to express my desire that co-operating and auxiliary hospitals may be provided for in every county in the state, and that every legally qualified physician in the state may have opportunity to practice medicine and surgery under the conditions now demanded by modern science. However, it is my function tonight to review the past and not to attempt to predict the future. It will be understood that I have been speaking of only one phase of the medical school—that of the evolution of its clinical teaching. Of the medical school as a whole I hope to write more fully later. I am proud of my long connection with the school. I am proud of the service it has rendered the state in its Hospital; of its graduates who have made its name honorable in all parts of the world; of its productive scholarship and research which have widened the fields of knowledge. To have been a teacher in this school for 45 years and to have been its Dean for 30 years, I number among the greatest honors that have come to me. I congratulate those now in its control, and with faith in their wisdom, I look forward to greater accomplishments.

It is not my purpose to pronounce an eulogy on the Medical School. This I consider superfluous. If a stranger should ask for an exhibition of the fruits of the school, I would hand him a list of its faculties and former students and paraphrasing the motto of the state, I would say to him, "If you seek illustrious names in medical sciences, you will find in that list a goodly number."

Under the ancient banner of this school there are inscribed three words: Intelligence, Industry and Integrity. These are demanded of both teachers and students.

ADDRESS ON THE OCCASION OF THE DEDICATION OF THE NEW HOSPITAL OF THE UNIVERSITY OF MICHIGAN—NOVEMBER 19, 1925

W. S. THAYER, M. D.

BALTIMORE, MARYLAND

Let me thank you, ladies and gentlemen, for the opportunity which your officers have placed before me in inviting me to address this gathering. It is a privilege to take part in such

ceremonies at one of the first and greatest of those American universities which have shown that the people of a self-governing state will support an institution in no way second to those older private bodies in this and in other countries which have long prided themselves on offering to teacher and student freedom of thought, study and utterance; which have afforded them liberty to pursue truth for truth's sake.

The guiding principles of an university should be liberty and tolerance. The true university is a society of students and scholars, searchers for truth. Only such can be real teachers. The mechanical retailer of the assertions and convictions of others has no place in a univeristy. He cannot be a teacher in the true sense of the word. He cannot be a successful teacher even in a secondary school. 'Tis one of the gravest defects of our secondary education in this rapidly growing country that with the wealth of opportunity open to all, there are sadly few students or scholars engaged in secondary teaching. Too many, the vast majority, are young people retailing information, teaching up to the limits of their knowledge, who have no thought of making their immediate occupation a career. Secondary teaching is but a passing incident in their lives, a means to acquire the wherewithal with which they may pass on to other opportunities which to them are more tempting.

What a difference it would make to our boys and girls were they, in the secondary schools, thrown into association with a real student and scholar, as is commoner in some of the older countries. Those individuals who have had the rare good fortune to fall under the quickening influence of a scholar in their early life, and those teachers who have had the opportunity to meet later with such men, know full well the enormous influence that the scholar in a secondary school may have on the character and the mind and life of his pupils—and indirectly on the future of the state.

A true university should seek primarily in all branches for those men and women who have shown themselves to be disinterested students and who seem to be especially qualified to profit by the advantages offered by its libraries, its laboratories, its unions, its opportunities for association with other superior men. To these men and women the university should offer its confidence, and then—freedom. And one more privilege it offers, the greatest of all privileges, that of association with those other students who are entering the field possessed of that blessed gift,

"Kind Nature's richest dower,
Youth, the fair bud that holds life's opening flower,
Full of high hopes, no coward doubts enchain,
With all the future throbbing in its brain,
And mightiest instincts which the beating heart
Fills with the fire its burning waves impart."

For association with the young is the greatest privilege of the teacher—the only vaccine against age and apathy. Only the student can be a real teacher; for only the student can inspire. And to secure the services of the student he must be offered opportunities for study. But there are students and students, and in all branches of learning, one meets now and then with quiet, modest individuals with minds of the delicacy of fine lace work who cannot work in the open, who cannot commune with the many, who need protection and seclusion. Teachers in the ordinary sense they are not. Yet the influence of some of these men is precious. Opportunity and protection and freedom for an occasional delicate vessel of this sort it is the privilege of a university sometimes to offer.

Freedom from the cares of the world, liberty to pursue the search for truth in his own way, liberty of thought, liberty of utterance, these are perhaps the greatest gifts that a university can offer to its members and to its pupils.

The other guiding principle of the university should be tolerance; tolerance without which the word freedom is but mockery. Intolerance is the child of fear and fear is the son of doubt and incomprehension. The university should offer to its staff liberty to search for truth; truth can never be dangerous.

"But," say those in the terror of incomprehension and ignorance, "there are directions in which you may not search, for by that very search you deny the truth which is ours and is more precious than all else, our faith."

But the searcher for truth attacks no faith. He seeks for truth alone and he has faith that truth, once revealed, will prevail. But truth is often very hard to find. To him who possesses or feels that he possesses truth, how can there be such words as doubt or fear? To doubt that truth will prevail is to doubt one's faith. The searcher for truth may doubt the faith of another, but he denies no man's faith. A poor and unworthy searcher for truth is he who attacks the faith of his neighbor, who lacks respect for the sincere belief of any man. Of this he is sure that one revealed truth will prevail; that truth needs no defense; that if, perchance, that which to his human vision has seemed to be a truth shall fade in the light of a new day, there yet remains hidden a greater, larger, purer truth for which, with a wider horizon, his mind is open. (Cf. Maeterlinck. Le temple ensevele). And if his neighbor blaspheme that which seems to him the higher truth, how shall that concern him? For has he not faith that he who blasphemes truth, but lays bare his own littleness in the purer light which must, one day, burst even upon his blindness?

He who fears that the searcher for truth may

destroy his faith, he who, possessing high ideals, fancies that this faith and these ideals may give way to anything that is not higher and broader and larger, thereby doubts and insults his faith. He who would seek to defend and protect those ideals by circumscribing the mental activities of his fellows not only insults his own faith, but stands forth as a cruel enemy to truth and progress and humanity. This is intolerance, a hateful beast of sordid ancestry.

The true university is the protagonist of liberty and tolerance, and opens the way in its sphere to the search for truth. It attacks no faith. Fear it knows not, secure in the faith that new truths can lead us only into a higher and broader life. To the eager youth who seek to penetrate further and further into the great mysteries of life and death it says in the words of the wise old teacher and poet:

"Take from the past the best its toil has won,
But learn betimes its slavish ruts to shun.
Pass the old tree whose withered leaves are shed,
Quit the old paths that error loved to tread
And a new wreath of living blossoms seek,
A narrower pathway up a loftier peak;
Lose not your reverence, but unmanly fear
Leave far behind you, all who enter here!"

Truth needs no defense. Freedom, alas, may. And the true university, through its tolerance toward all who are sincere, should be the sword and the buckler of that liberty of thought and speech through which alone new truths will be revealed.

* * * *

The opportunities and associations of university life you are now offering to the teacher and student of medicine and surgery and 'tis well that it should be so. Instruction in the art of medicine, to but relatively a few years ago, while often carried on under the wing of the university, was left largely to active practitioners of the art with few opportunities and little time to give to the study of its scientific aspects. But within the last century, and especially the last fifty or sixty years, the scientific basis of medicine has been greatly strengthened. For many years the fundamental sciences called into service in the study of medicine have been subjects for university study and investigation. Now at last we are coming to realize that even in the practical branches of the art the university must offer to a selected kernel of its staff the same protection, the same financial support, the same opportunities for research and study that it has long offered to the student in other branches of science and the liberal arts. As to the student of the classics you offer your libraries, as to the botanist you give gardens and laboratories, so here you are offering to the clinical instructors in your departments of medicine and surgery this great hospital in which they may study and practice their art. At the same time you are giving to a selected group of men who desire to give their lives to study and university work that financial support which may set them free from many of the burdens and cares of self-support and place them on an university plane with the student of the humanities and natural sciences. It is a great step forwards, advantageous alike to the profession and to the community.

The practice of medicine has changed amazingly even in a period so short as that of one lifetime. Forty years ago, on my graduation from college, the time demanded for the examination of a patient by the best equipped consultant was but short; the methods of examination employed were such that they could for the most part be carried on in the consulting room by the examiner himself. The few additional special studies that had to be made were easily fulfilled. But what is the situation now? The patient who is suffering from some obscure complaint, trivial or serious, it is immaterial, tells his story to the physician. The examination may uncover few definite revealing signs. The physician is in doubt; there are many possibilities. What shall he do? What would be the ideal thing to do? The ideal thing to do would be to make a thorough routine examination of the patient just as one makes his own physical examination in the consulting room, a systematic study, anatomical and functional, from head to foot. This would mean observation in a hospital, the consultation of a considerable number of special students, and would involve many complicated and expensive physical and chemical investigations of special organs, of body fluids, excretions and secretions. That which one might do in the attempt to make a complete study in any given case is almost unlimited. Where shall one begin? Where shall one stop? Many studies which are desirable in a complete survey are impossible for the general practitioner to carry out. Indeed, they may be wholly out of his reach. With the physician lies the responsibility of determining what examinations are necessary, what desirable, what superfluous. In him the patient places his faith; he must consider all the aspects of the situation; he must know how best to utilize the diagnostic machinery, simple or elaborate, which may be employed; he must consider the measures at his disposal, the means of his patient. The student must learn the significance and the relative importance of different diagnostic procedures, for upon him falls the responsibility of deciding that which is necessary.

It is important for the public that there should be centers in which such studies may be made under proper supervision. A university clinic like this should afford every opportunity to the teacher and student to pursue these studies. To the students it should afford the necessary opportunities to acquire certain fundamental conceptions as to the nature of dis-

ease and the principles of therapeusis that can be satisfactorily made only where adequate scientific apparatus is at hand, as well as the required knowledge of the significance and relative importance of a great variety of diagnostic procedures. Many of these he may be unable to employ himself, but occasionally, or more often, he will be obliged to make use of them for the benefit of his patients. For the public, medical and general, it is desirable that there should be centers to which the practitioner may bring his patient for those special investigations and studies which are impossible other than in an institution with elaborate scientific equipment in the hands of highly trained and disinterested students.

It is needless to point out what an opportunity is offered in this connection to the unscrupulous and the venal. There are today many so-called laboratories and clinics more or less commercial institutions, in which examinations are made by men who are far from competent. An examination, even if well made, the results of which are improperly interpreted, is worse than useless. Too often the doctor or patient is confused or deceived, the patient perhaps suffers, the public is bled. It is not easy for the practitioner who has not had a good basic training to appreciate the significance and the relative value of new and perhaps valuable diagnostic procedures. Commercial laboratories conducted by men of shallow general training are not a public safeguard; they are a liability.

That the well equipped school of medicine should have in its medical and surgical departments a group of men who are well-salaried and afforded wide clinical and laboratory advantages is, I think, becoming very generally recognized. These men are in a true sense university professors. Such a group of men is as valuable to the hospital as it is to the university. This truth is becoming more and more apparent to the intelligent public. An interesting example is the action a few years ago by the enlightened governors of a public institution which has for many years been conducted with unusual credit. The trustees of the Boston City Hospital, having observed the value of university divisions in various private hospitals, deliberately, voluntarily and of their own initiative, established that model university division which is now presided over by Professor Francis W. Peabody. By so doing they have established in the hospital a scientific center of equal value to university, to city, to the hospital and its visiting staff and to the general public.

Such a division and such an association are invaluable to any large general hospital. But it should not be forgotten that there is another element without which no hospital and no department of medicine is complete and that is a co-ordinate staff of expert clinical surgeons and physicians. The professor of medicine, the director of an university division of medicine or surgery may, and I think should, be an experienced clinician or surgeon. But he can become so only through long experience in general or consulting practice of his art in all branches of society. Such experience may be offered by hospital in its public and private wards; but the experience is indispensible.

It takes many men to make a department of medicine or surgery—the adept in special branches as well as the experienced or skilled general surgeon or clinician.

What sort of man should be the director of an university department of medicine or surgery? As I have often said in public and in private, there is no absolutely set type for a director of an university clinic; the essential thing is that he should be a learned physician or surgeon with a good scientific foundation and scholarly tastes, who is a good organizer and whose heart is in his work. He should, in my opinion, always be a man who has had a considerable and well digested clinical experience. It is conceivable that such a man may have special interests, neurological, bacterilogical, chemical, but if he is the right sort of man he will see that his clinic is complete. Ten years ago, discussing the objections that had been raised by some to the establishment even of a nucleus of university professors in the clinical branches, I said:

"So far as the student goes, the danger that under the direction of a salaried professor, he may be given a training more purely academic and insufficiently practical seems to me small. In the first place, it has already been pointed out that the professor of medicine will doubtless be a man who has had a considerable clinical experience with patients in all classes of life, whose training has been by no means purely academic, and although some of his associates will perhaps be men who have not yet acquired the ripened experience which should be that of the head of a department, yet no one for a moment fancies that *all* the instruction in medicine and surgery will be given by the nucleus of teachers wholly dependent on their salaries. In every large clinic, and in every large hospital affiliated with a university, a considerable part of the instruction in general medicine and surgery, as well as in specialties, must be entrusted to men with or without salaries, who are more or less actively engaged in practice. The fancy that because the director of such a clinic and many of his assistants are no longer at the beck and call of the public, the student is to be regarded as deprived of the opportunities offered by association with men who have been or are engaged in active practice, is a misconception." This seems to me as true

today as yesterday. But there is a danger which may be mentioned.

There is a tendency to offer chairs of medicine and surgery to young men of special promise who, after two or three years of interneship, have given the great majority of their time to the study of special problems which have held them aloof from active clinical work. These men may make admirable professors of medicine in the sense that they may have a thorough and sound conception of what a department of medicine should be; but at the time when they enter on their duties, such men are not—and cannot have become—trained or experienced clinicians. The responsibilities of the chair of medicine in a great university are heavy and I fear that for some of these men the professorship may bar the way to the acquisition of that experience necessary to make them finished diagnosticians or clinicians. To become a well equipped diagnostician or clinician requires an amount of time spent at the bedside and in conference with patients that these men have not been able to give previously and are scarcely likely to be able to give in the future. Such men may be great administrators, profound students of a special branch, learned medical men, but, I am afraid, rarely great clinicians. In a properly organized clinic, it may be answered, thes men will so select their staff that students and patients are offered association with the experienced clinician or surgeon. This may be, but, on the whole it is, I think, unfortunate, especially for the professor himself, that he should be obliged to assume the duties of director of a large clinic at a time when he is not wholly at home at the bedside. I cannot help feeling that the situation of some men who, too early in their careers, are tempted to accept a professorship, may be rather tragic.

An associate professorship in an university division should offer priceless opportunities for the acquisition of competence in any branch of surgery or medicine. These foundations bring to the clinic men of special talent and training in special lines. But if a man desires to become a clinician or an operating surgeon, he cannot at the same moment give the main part of his time to teaching and to the investigation of special problems which confine him to the laboratory and classroom. He must of choice and deliberation give years of his life to the intensive study of clinical problems. This opportunity the university should offer him, profiting the while by his special talents which are occupied in teaching and in research in the field of his special competence. But he should be protected from all unnecessary teaching while he devotes a large part of his time to the acquisition of clinical experience among patients in all classes of life. There is abundant room in the university school of medicine for the clinician and the student of special problems side by side. No clinician who is worth anything can fail to be pursued by the desire for research, but he must have daily and engrossing clinical duties if he is to be a clinician. The student of a special problem should not be required at the outset to teach subjects with which he is not wholly familiar. At the beginning of his career he must, for a number of years, give a large part of his time to clinical duties before he acquires that competence necessary for the general clinical teacher. He should be protected during those years in which he is not only pursuing his special duties, but is also acquiring this necessary clinical experience, and during this period he should not be expected to bear the burdens of general clinical teaching. His most valuable contributions are for the time being in his special line.

A school with a purely university staff would be incomplete. It could not do its full duty to patient or student or staff. The patients would be deprived of the diagnostic and practical skill of men of larger experience and the student of instruction by such men. On the other hand, the burden of duties as instructors in an art in which they are not altogether at home would take the valuable time of specially trained men who should be protected in their investigations and offered opportunities, if they desire them, for the acquisition of that general clinical experience, highly desirable, if not necessary for the director of a department. Too many duties in the way of general clinical teaching should not be forced upon these men too early in their career. The desirability of association with an experienced clinical staff should be generally appreciated. The university and the clinical staffs should be inter-dependent.

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The problems of teaching of medicine and surgery are engaging. You in Michigan have had among you some of the most distinguished students in this country. I need not name them. Many are here today. One whom I have especially loved and honored has already spoken. The presence of these men has made Michigan one of the great schools. The efforts which the state and the faculty have made and are making will make it greater. You have had your critics. What an uninteresting school you would have had if you had not! But you have looked forward, and following the wise maxim of Candide, you have cultivated your garden.

And while we are working in our garden striving for better things, full of enthusiasm and hope, rejoicing at times, perhaps, in what we have accomplished, along comes our old friend with resigned air or cynical smile, and says: "Foolish man, you talk of your garden and even of the world as if 'twere a garden or a world of flowers. Wake up! Look about

you! Is this a world of flowers? Is it not rather a world of weeds? And your very garden, be it university or profession, what is the commonest thing in your garden, the flower or the weed? Is not your very garden in truth a garden of weeds?" And almost lovingly he directs our eye to the familiar, amusing or dreary or sordid and tragic picture of our omnipresent neighbor, the weed.

Ah, entertaining whisperer of half-truths, how familiar is your picture! How well we know the back-yards and the ash heaps and the tin cans and the waste iron and the neglected field. How well we realize that the bright flowers that illumine the roadside or the meadow are but spots, islands amidst the riot of stubble and weeds among which they rise. And in the world of which we are members, are we not but too familiar with the infrequency with which the human flower raises its head above the drab and dreary monotony of weeds?

But why dwell upon the weed? Is it not the flower that counts? What is it that fixes and freshens the eye of the traveler on the road of life, the dusty weed or the gleam of the flower? Are the labors of the botanist and the gardener in vain—the gardener who prepares the ground for the growth of the flower; the botanist whose transformation may bring a halo even to the lowly weed?

There are, 'tis true, some earnest and serious but rather ponderous brethren who fancy that they may sharpen the enthusiasm of the gardener and the botanist by dwelling on the unloveliness and the omnipresence of the weed. And then there are those, usually rather young, who take a sort of perverse joy in pessimistic visions of the futility of life and in the contemplation of the unlovelier characteristics of the weed, a shallow and sophomoric epicureanism. But why waste one's time in exaggerating or gloating on the unloveliness of the weed? Even the weed has its hour of charm. There is a moment at which even the weed flowers.

And then is it not the weed with its modest blossom that time, the mind of the botanist and the hand of the gardener have transformed into the perfect flower? What if the botanist and the gardener in the beginning had been content with pessimistic or cynical contemplation of the unloveliness of the weed? Consider the world of the middle ages and the renaissance. What remains today? Is it the picture of the sordid ignorance and vice and eternal discord of the population? Or is it rather the lofty naves and domes and graceful spires, the glittering jewels of Chartres, the tombs of the Medici, the harmonies of the painter's art? The weeds are long forgotten; the flowers remain, more radiant and more lovely in the tender light of receding years. It is the flower that counts. Is it not our function to feed and nourish and transform the modest and transient blossom of the weed into the more perfect flower? And if our neighbor choose to devote himself to the contemplation of weeds, and close his eyes to the flowers; if he choose to dwell upon the unloveliness of the weed rather than upon *its* flower; if he be blind to the circumstance that in its modest and blundering way even the weed is seeking for beauty, let us not be annoyed. So, somehow or other, in a devious way, is our perverse friend. It is the flower that counts. *"Cultivons notre jardin."*

THE TEACHING HOSPITAL OF THE UNIVERSITY OF MICHIGAN*

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Nearly fifty years ago Pasteur demonstrated to a skeptical world the relation of micro-organisms to disease, and pointed the way to the experimentation which has led to a fuller realization of the relations of micro-organisms to human life. Pasteur had that divine discontent which leads to progress.

As the result of the researches of Pasteur and the experimental and clinical work of Lister, successful surgical work for the first time became possible in hospitals. In all previous times the sick went to a hospital for treatment of surgical conditions only when they had no other place to go, and hospitals were justly looked on as necessary, but perilous refuges for the sick poor. Hospital gangrene and infections were so rife that practically all surgical patients in hospital wards were infected and many died, and therefore patients were operated on only when absolutely necessary to save life. As dangerous hospital conditions were overcome by the progressive development of asepsis and antisepsis, the surgery of expediency developed. Operations were now performed to relieve patients of lesions that caused disability, but which did not directly threaten life, and in the earlier curable stages of disease, to prevent the development of the disastrous late stages in which surgery was attended by a high mortality and a small percentage of cures.

The modern hospital has rendered a service steadily increasing in scope until today it is established as one of the most beneficent of institutions.

Considering the pre-antiseptic background of the hospital, it is not strange that members of the medical profession and especially the laity were slow to recognize the changing character of this institution. Hospitals of the United States originally were based on the caste system of Great Britain, where the anomaly exists of giving only to the dregs of humanity

the opportunity of fine hospital service. Everywhere in Great Britain there are beautifully appointed hospitals for charity patients, but there are non comparable for the middle and upper classes.

Caring for the health of the people is the first obligation of any government. The public need is not an excuse, but a reason, for public health institutions. It is only fair that if an individual, whether he be poor, in moderate circumstances, or rich, can best be cared for in the public hospital, he should have this advantage, not only in his interest, but also in the interest of public welfare. In other words, the charity patient should have as good, but no better care than the taxpayer. If the taxpayer of moderate means enters the hospital and is properly cared for, a long sickness, or death may be averted, and not only is the family saved hardship, but the taxpayers of the community are saved the burden of supporting it. Unnecessary sickness, whether treated at public, or at private expense, means a reduction in the number of taxpayers, because reduced efficiency renders one unable to carry his fair share of collective responsibility.

The hospital should be a refuge to which the sick might go for relief as they went before our Savior, their distress the only condition of admittance, not their social or financial status, race, or creed.

The public hospital of the future will be as directly concerned in the social and economic status of its clientele as is the private hospital, and its largest return for money expended will be in the reduction of the number of persons requiring institutional care. Public hospitals have too largely existed for the derelicts.

The whole force of modern medicine should be applied to detect disease in the early stages and prevent the disastrous consequences which lead to permanent disabilities or death. We should apply to the individual the same principles of prevention which have made such magnificent returns in public health work. The ills of today must not cloud the horizon of tomorrow.

In one department of education, in the medical schools, the British system, viewed from the standpoint of care of the sick, gives, I believe, better results than the system in the United States. The graduates of the British medical schools, while perhaps not so scientific, are among the best doctors in the world. Most British medical schools are connected directly with hospitals. Always is the purpose of the teaching made clear, and the student from first to last never loses sight of the patient. Examinations in the British medical schools are given to test the quality of the students' knowledge, in the American medical schools to test the quantity. Medical schools in the United States are, generally speaking, not directly connected with hospitals; consequently there is a tendency to under-value the clinical side of medicine, and the student's curriculum is often crowded with cultural and scientific subjects not always closely related to the care of the sick.

The problem of medical education is a many-sided one. It is very encouraging to those who believe in a democratic form of government to see a difficult situation handled in so enlightened a manner as that evidenced in the establishment of the University of Michigan Hospital. Not only the State of Michigan, but also the nation is to be congratulated on the fine understanding and humanitarianism manifested in the creation of the hospital which we are here to inaugurate. In the opening of this great hospital, however, there is an even deeper significance. Its purpose is threefold: To give the citizens of the state, especially those living in the sparsely settled districts where the death rate is now higher than in the worst districts of the cities, the benefits of modern medicine; to pass good health around; to train medical students how to treat its sick citizens, and to advance research into the causes and prevention of sickness, by furnishing opportunity for medical graduates to continue their studies.

It has been argued against the University Hospital that it competes unfairly with doctors and hospitals outside the university circle. The members of the medical profession as a whole are altruistic. They have always given freely of their time and knowledge to the poor without expectation of reward. What other profession has given so freely, without regard to race, creed, or color? Tradition dies hard, however, and the physician is still expected to care for any and all patients in the public hospital free of charge, a practice unjust to the physician and to the taxpayer, for no matter how obscure the mechanism which brings it about, the public pays if the individual does not. There is no reason why persons who are able to pay for their medical treatment should not pay in a university hospital as in any other type of hospital. It is a hopeful sign of the times that many of the more progressive community hospitals are admitting all classes of patients, those who can pay for their hospital care and for the services of their physicians, as well as those who are unable to pay. As to competition with other hospitals, the argument has no real force, since each patient, rich or poor, in the university hospital, is used for teaching purposes, thus contributing to medical education so far as his condition permits, and, if he is able, he pays for his hospital care and a fair fee to his physician. This provision of the university hospital certainly affords a reasonable protection to the members of the medical profession and hospitals not so handi-

capped, and it is most gratifying to find so many broad-minded patients willing to have their ailments used for teaching purposes that others may be benefited thereby.

The long period of study necessarily required of the medical student, in the premedical and medical courses, is to teach him to recognize disease. None of the cults or "pathies" requires training for diagnosis or affords those contacts with the sick which are absolutely essential to proper diagnosis and treatment. The cultist says, "I am not interested in diagnoses, anatomy and physiology, I have a remedy or method of treatment which cures, no matter what the trouble is;" or, "All sickness attacks only the spine and is to be knocked out by readjustment of dislocated vertebrae;" or, "There is no such thing as sickness."

Happiness is a state of mind, not necessarily a state of body. Many persons are happy under the most discouraging circumstances. Less fortunately, certain sick persons, because of their contented dispositions, suffer uncomplainingly until their physical ills become incurable. There is another great and constantly increasing group of unhappy sufferers whose trouble is incident to the stress of modern social life, unconnected with tangible physical ailments. These patients are wretched, they believe their trouble is due to a malady, and they want relief. They demand treatment, not diagnosis. These sufferers, for they do suffer, can be reached only through the emotions, and thus they have become profitable material for the workers in "pathies" and the cults who often relieve states of mind that do not depend on states of body.

In the back of the minds of many persons is the question, "Is it in the best interest of the patient to go to a hospital, one of whose functions is to teach medical students?" I can answer most emphatically, "It is." Publicity is the backbone of our social system. Pitiless publicity, one might say, is almost the only weapon of the American people. The publicity which attends on instruction in medicine in the university hospital makes certain that a high level of service will be rendered the patient. Stimulated by the inquiring minds of his medical students, the teacher recalls his experience and applies it to his class bedside teaching. Great accomplishment in medical science has come from this association of men old in medical practice with those young in experience. The unhappy experiences of those long in practice too often crowd out the more pleasant ones; we remember our mistakes years after we have forgotten our triumphs, and the caution which age and experience bring is often gained at the expense of advancement. The imponderable contact of mind with mind, the energy and sincerity of purpose with which the treatment agreed on for the patient is carried out and the effects watched by the young man in medicine is of the utmost importance.

Youth is always insurgent. "He who does not go beyond the facts will seldom get as far as the facts." Young men entering enthusiastically on their professional life, approaching scientific problems with the eagerness of youth, unhampered by embittering experiences, under proper control, carry on researches of the most extraordinary value to the present and future of medicine.

A hospital which functions not only as a school for undergraduates in medicine, but also as a school for graduates, giving advanced scientific training, will enlist the best efforts of the highest type of recent graduates in medicine, and automatically give to its clientele the great advantage of a young, intelligent and enthusiastic junior staff, who will consider the opportunity for service and for scientific observation a privilege. When their hospital service is ended, these young men will make the greatest return in caring for the sick of their respective communities, one of the rewards the citizens of the state receive for their educational efforts. The university hospital will appeal not only to the men in medicine, and improve the quality of hospital service, but it will also enlist from every walk of life the services of humanitarians interested in guarding human welfare.

The function of the university concerns the tomorrows, the function of the government the yesterdays and todays. The university, through its organized intelligence, controls the future. Speaking as one who, for nearly twenty years has been a regent of a state university, I have found most inspiring the growth of a keen interest on the part of university men in all matters which have to do with future betterment.

Only as we estimate a government as composed of willing, but generally uninformed individuals, do we recognize that their legislative duties must pertain to functions which are more or less generally understood. The universities train the men of vision, who step in where government halts, and open the way for the government to follow.

Michigan has a population of nearly four million. The greatest asset the state could have, both for the present and for the future, would be a great medical center built around the splendid medical department of its state university. Medical education would be greatly advanced, not only for the undergraduate, but also for those who have been graduated in medicine and who devote to research the early period following graduation. The community would be enormously benefited by such application of these years of unselfish labor in the hospitals, in the return it would later receive in men highly trained along special lines.

Researches with the microscope have length-

ened the lifetime of man, since Pasteur's epochal discoveries from forty-three to fifty-eight years, largely because mass diseases of the first half of life have been eliminated by pure water, pure food, and the development of immunity to contagious and infectious disease. The twilight zone of the ultramicroscopic field, by making possible biochemical studies of the individual, for the early discovery or prevention of conditions which lead to the premature deaths of middle age, gives promise in the near future of adding more than twelve years to fulfill the promise of the Holy Writ that the age of man shall be three score and ten.

REPORT OF A CASE SHOWING AN UNUSUAL TYPE OF DEXTROCARDIA

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I report the following case by the courtesy of Dr. F. J. Smith.

The first description of dextrocardia was that of Severinus of Rome in 1643. By 1749, the division into congenital and acquired had been made. The first cases were all autopsy discoveries, but the stethescope and the X-ray have increased the number of diagnosed cases very much.

The condition of right-sided heart has been well classified as follows:

Inversions—in which the heart is on the right side and is the mirror image of a normal left-sided heart, the apex, therefore, still formed by the arterial ventricle. (Fig. 1). This class is divided into:



FIG. I.
Diagram of the two types of congenital right sided heart.

(a) Situs inversus viscerum——transposition of all the viscera of chest and abdomen, even to the adrenals. This is by far the most common of dextrocardias.



FIG. II.
Chest plate of case of Dextro-versio-cordis.

(b) Incomplete heterotaxy—in which there may be transposition of the viscera, with the heart on the left side, or heart and lungs only transposed, or heart alone on the right side. These three are all very rare, indeed.

Dextroversio cordis—in which the heart has apparently, during development, undergone a twist so that the left cavities become anterior and to the right and the venous ventricle forms the apex (Fig. 1). This condition is very often associated with malformation of the heart.

These two divisions form the congenital right sided hearts.

Acquired dextrocardia—or false, in which due to lung pathology, eventration of the diaphragm, etc., the heart is either pulled to the right by adhesions, or pushed by fluid, or accompanies a laterally displaced mediastinum. The cardiac axis is, of course, unchanged, the apex pointing to the left.

The present case was that of F. S., an obese woman of twenty-eight years, complaining of pain over the left front chest and nervousness, over a period of six months. The early history was of no moment.

The examination showed no abnormalities of importance other than the following: The apex beat was seen 10 cm. to the right in the fifth interspace. The left border was 3¾ cm. to the left in the second interspace, 4½ cm. in the third and fourth interspaces. The right border was 9 cm. to the right in the third interspace, 11 cm. in the fourth and 12½ cm. in the fifth. The cardiac rate was 80, the rhythm was regular. P2 was slightly accentuated and there was a soft systolic blow at the apex, audible also in the axilla. The arteries were soft. The blood pressure was 125/75. The liver dullness was on the right side with tympany over the left hypochondrium. Fluoroscopy and chest plates (Fig. 2) showed the lung fields entirely clear, the left diaphragm higher than the right, both sides free moving, the heart on the right side, with a rounded apex and transverse type of heart. The transverse diameter by fluoroscopic tracing was 14.3 cm. Barium given to the patient showed the stomach to be on the left side.

Fig. 3 is the electrocardiogram of this case, a normal curve with small complexes in lead I. Compare that with Fig. 4, the curve, that of a case of situs inversus seen not long ago—all waves of lead I are inverted and leads II and III are interchanged. This is the curve in the ordinary case of dextrocardia.

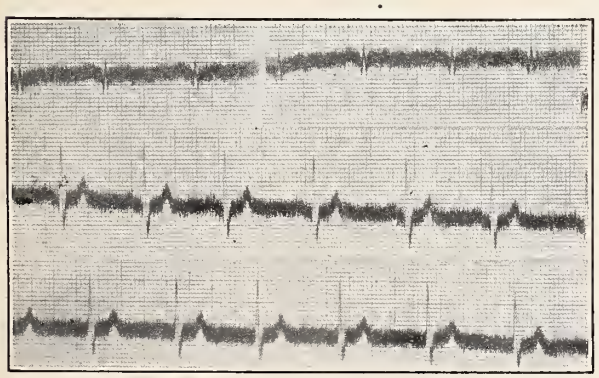


FIG. III.
Electro-Cardiogram of case of Dextro-versio-cordis.

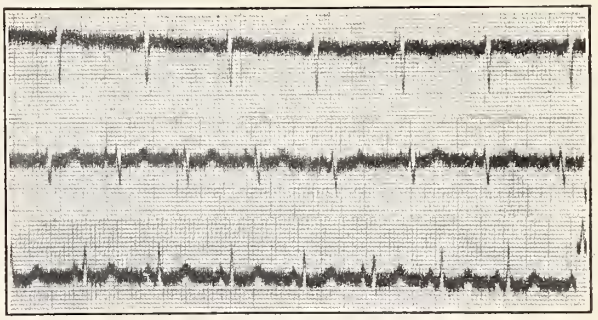


FIG. IV.
Electro-Cardiogram of case of Situs inversus viscerum.

In summary: The true inversions cause a change in the electrocardiogram as if the arm leads were interchanged, i. e., an inversion of all waves in lead I, and leads II and III interchanged. The dextroversions affect the electrocardiogram only by the change in cardiac axis varying the height of the waves. The characteristic electrocardiogram of the transpositions is due, therefore, not to the position of the heart, but to the relative positions of the intracardiac cavities.

Our case was thus one of dextro versio cordis, one of about sixty reported.

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THE TREATMENT OF UTERINE FIBROMYOMATA*

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In order to bring out some of the indications for treatment, I wish first of all to review briefly the history and pathology of these tumors. Uterine fibroids are slow growing neoplasms, seldom diagnosed before the age of 25, but encountered with increasing frequency up to the age of 55. These tumors may be single or multiple, may vary in size from a millet seed up to a tumor weighing twenty pounds or more. As to position, they may be subserous, intramural, or submucous and about 10 per cent are cervical. Some grow laterally into the broad

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ligaments and are known as intraligamentous, while still others grow in an anterior direction causing pressure upon the bladder and occasionally become impacted under the pubic arch. Of the subserous fibroids a few lengthen out their attachment and become pedunculated. Some produce no symptoms and are found only in the course of routine examination. Older writers believed that all fibroids atrophied and disappeared at the menopause. There is no doubt that a certain proportion of these neoplasms do undergo involution or atrophy at or after the menopause, becoming smaller in size; but it is now quite generally believed that the disappearance of a fibroid by atrophy after the menopause is not common and is never to be expected in any particular case. The large majority of fibroids sooner or later produce symptoms and some constitute a real source of danger to the patient. Thus, Noble estimated that 14 per cent of his series of 337 cases would have been followed by a fatal outcome had not surgery been instituted for relief.

Fibroids are poorly supplied with blood, the circulation being largely peripheral, very few and very small vessels find their way into the interior of the growth. For this and other reasons these tumors are prone to undergo degeneration. Tracy estimated that 30 per cent of all fibroids undergo either benign or malignant change. These degenerations may be classified as follows: hyaline, cystic, myomatous, fatty, calcarenous, hemorrhagic, necrobiosis, necrosis, red degeneration, sarcomatous. It is also well known that fibroids are a predisposing cause to carcinoma of the corpus. They appear to produce changes in the blood supply or alteration in the uterine mucous membrane due to pressure which furnish the necessary irritation for the development of carcinoma. Noble, in studying a series of 2,274 cases, found complications existing in the uterine appendages or in the pelvis in 37 per cent of the cases. Cervical fibroids not only cause pain, but symptoms resulting from pressure on the ureters, the bladder, the rectum, and any portion of the intestine that may happen to be adherent in the pelvis. Pedunculated subserous tumors not infrequently undergo torsion of their stalk, giving rise to severe symptoms and demand immediate surgery. Submucous tumors have an unusual tendency to bleed, causing severe anemia. Necrosis is quite common, especially when through contractions of the uterus, the tumor is partially or wholly extruded into the vagina, with the possibility of the infection of the growth. Calcareous tumors in older women, when traumatized, may give rise to necrosis. Many fibroids associated with pregnancy enlarge with the pregnancy. Winter, in a study of twenty-three cases complicated by pregnancy, observed that five progressed without any disturbance; eighteen had varying degrees of pain and discomfort due to various causes such as painful uterine contractions, localized peritonitis or secondary changes in the tumor. Rapid growth of a tumor may cause pain. Serious pressure upon the bladder may be caused by impaction of the tumor or uterus in the pelvis, or rotation of the uterus. During labor while obstruction is rare, hemorrhage from submucous tumors is not uncommon and after delivery, postpartum hemorrhage, necrosis or infection of the tumor may jeopardize the patient's life.

The history of the treatment of fibroids is of unusual interest and will be given briefly. Medical treatment at one time enjoyed great popularity for the control of hemorrhage, but results were most uncertain. Ergot was advocated by Hildebrandt, in 1872, on the theory that it controlled hemorrhage and favored the extrusion of the submucous growths. Since that time hydrastis canadensis, adrenalin and a long list of other drugs have been used with but little effect upon either the hemorrhage or the tumors. Electricity was at one time in vogue. Tripier and Apostoli advocated and used electricity for the treatment of these growths and claimed wonderful results, but this method has long since been discarded. Dilatation and curettage, intrauterine applications of iodine, formalin, chloride of iron, have also been given up. In the early days of surgery when the mortality from hysterectomy was high, various non-radical measures were employed. Tait in 1872 described salpingo-oopherectomy. Schroeder and Antal, in 1889, practiced ligation of the ovarian vessels through the vagina. Bilateral oopherectomy has also been done many times. However, with the improvemnt of surgical technic with its lessened mortality these measures were gradually given up.

Myomectomy was first performed by Armuseat in 1840. Charles Clay, in 1845, performed the first hysterectomy. He was followed by Heath a little later, in 1843, by Atlee in 1844, by Bellinger in 1846, by Burnham in 1853, and by Kimball in 1855. Kimball did a supravaginal amputation and dropped the stump. Koeberle in 1861 did the first successful hysterectomy in Europe. He devised the serrenoeud for this operation. This was an elastic ligature which was made to surround the cervical stump and held there by transfixion pins after the cervix had been fastened into the lower angle of the incision. Th technic of hysterectomy was further perfected by Pean in 1873, by Bardenheuer in 1881, by Jones in 1883, by Emmett in 1884, by Stimson in 1889, by Baer in 1892, and finally by Pryor and Kelly. The modern operations of myomectomy and hysterectomy have been perfected following the early work of these surgeons until at the present time abdominal hysterectomy has a mortality of only

2 per cent, while that of myomectomy is less than 1 per cent.

Much has been claimed in recent years for the efficacy of radium and X-ray treatment of these tumors. In order to compare the relative value of radium, X-ray and surgical treatment it is necessary to state the indications, contraindications and limitations of each. X-ray experts more or less generally recognize the following limitations and contraindications: 1. X-ray should not be used during the reproductive period as a large percentage of women are rendered sterile by its use. 2. The following types of tumor should be excluded: (a) all tumors undergoing degeneration, (b) all fibroids associated with early carcinoma of the corpus or cervix, (c) all fibroids causing pressure symptoms, (d) all submucous and subserous tumors, (e) all tumors associated with pregnancy, (f) all tumors in which adnexal disease is present.

If 30 per cent of all tumors show degenerative changes and 37 per cent adnexal disease, 67 per cent must be excluded for these conditions alone. Five per cent more will show pressure symptoms. Add to these the uncomplicated subserous and submucous tumors, the tumors associated with pregnancy and all uncomplicated tumors occurring in the reproductive period, it leaves a rather small percentage of cases in which X-ray is applicable.

The contraindications for radium are about the same, and in addition radium should not be used in tumors larger than a four months' pregnancy. This leaves the field for radium a little narrower than that of X-ray.

The indications for X-ray and radium may be summed up as follows:

1. Uncomplicated intramural fibroids causing symptoms.

2. Cases in which hemorrhage has been so prolonged or profuse that the hemoglobin is reduced to 30 per cent or below.

3. Fibroids associated with cardio-renal disease, diabetes, pulmonary tuberculosis, etc.

In looking over the statistics of X-ray experts, it is evident that they base their cures almost entirely upon one factor, viz.: the disappearance of symptoms. Most roentgenologists are careful not to mention the percentage of cases in which the tumor is made to disappear.

Some statistics found are as follows: Eymer, 94 cases, amenorrhoea 49 cases (52.1 per cent), reduction in size 30; Steiger 23 cases, symptomatic cure 85 per cent. Mohr 380 cases, (collected), symptomatic cure 56.2 per cent.

As to the disappearance of the tumor, Mohr's statistics are interesting: 380 cases treated; unaltered, 21.3 per cent; reduced in size, 57.6 per cent; markedly reduced, 13.7 per cent; entirely disappeared, 5.3 per cent; subjective sensation of diminution, 0.8 per cent; increased in size, 1.3 per cent.

Other statistics are as follows:

Brettauer, 33 cases; amenorrhoea, 78 per cent; Martindale, 37 cases, amenorrhoea, 82 per cent; Heyerdahl, 30 cases: amenorrhoea, 80 per cent, Hanks, 100 cases: amenorrhoea, 99 per cent; in 30 cases, two and one-half years since treatment, disappearance of tumor in 80 per cent. Beclere 294 cases: 10 failures, 3.4 per cent; Lindquist, 34 cases: amenorrhoea, 65 per cent; Crossen, 600 collected cases with 5 per cent of failures; Pfahler 87 cases, 75 per cent.

Thus we have 1,692 cases reported with 78.5 per cent of symptomatic cures. It is stated that from 1 to 20 treatments were given in these cases. Other interesting data discovered while perusing the literature may be quoted; Pfahler reports two cases treated by him in which pelvic abscesses resulted. Beclere reports that in 300 cases, two were found to have been wrongly diagnosed as ovarian cysts. Vincent and Laffont report a case treated by X-ray in which the tumor rapidly increased in size and at operation an inoperable carcinoma was found. Roehm and Barnard report a case of sphacelation of a fibroid after 20 X-ray treatments. Horvath reports X-ray treatment in a case of cystic fibroid followed by the death of the patient. Delbet and Bellinger state that results of X-ray treatment are not constant, that it often fails to diminish the tumors in size, that it causes adhesions, produces great vascularity and tissue necrosis, greatly complicating a subsequent hysterectomy and rendering myomectomy practically impossible. Then, too, there are other factors which make X-ray disadvantageous such as X-ray burns, nausea, vomiting and in some cases persistent and intractable diarrhoea.

RADIUM

There is no question that radium is the indicated form of treatment in a certain percentage of fibroid cases. From what has already been stated the field for radium is not large, but it is definite, and may be summed up in a few words. Radium is the treatment of choice for the smaller fibromas in women approaching or within the menopausal years whose only symptom is hemorrhage. Radium treatment is as simple as an ordinary curettage. It may be given with gas oxygen or even local anesthesia, the morbidity from it is negligible and the mortality is nothing. The results are satisfactory insofar as relief of symptoms is concerned in 95 per cent of the cases selected for this form of treatment. Statistics I have been able to gather are as follows: Corscaden, 203 cases, 3 failures; John G. Clark, 476 cases, 4 per cent failures; Kelly, 210 cases, 13 failures.

(Some of Kelly's cases were in young women where small doses were applied).

Statistics of surgical operations would fill several pages. I will quote from some reports:

HYSTERECTOMY

Deaver	750 cases	mortality	1.75%
Hildebrand	195 cases	mortality	1.54%
Wachenfeld	225 cases	mortality	1.75%
Tracy	100 cases	mortality	2.00%
Moeller	700 cases	mortality	2.14%
VanEtten	75 cases	mortality	1.25%
Ott	480 cases	mortality	2.5 %

2,525 cases with an average mortality of 1.83%.

MYOMECTOMY

Mayo Clinic	750 cases	mortality	¾ of 1%
Bonney	100 cases	mortality	1%

It is difficult to compare statistics from these three forms of treatment for the following reasons:

1. Cases suitable for X-ray and radium are selected cases—the uncomplicated tumors in which there should be no mortality. The surgeon operates upon complicated cases and some of his mortality arises from the complications.

2. When an attempt is made to compare radium and X-ray "clinical cures" with a radical cure, such as is obtained by a hysterectomy, a number of questions arise:

1. Are the X-ray specialists sure that a fibroid really existed prior to treatment?

2. In what percentage of cases does the tumor disappear?

3. Are X-ray experts reasonably sure that the symptoms will not recur?

4. Are they reasonably certain that sarcoma or carcinoma will not develop at some later time?

It is my contention that the large majority of fibroids are best treated by surgery. The operation of myomectomy for suitable cases in women during the child-bearing age, and hysterectomy, either supracervical or complete, in other cases, and for the following reasons:

1. Because by surgery the tumor is entirely removed. 2. By surgery the function of the ovaries may be preserved. This is a very important consideration, especially in women under forty. Louwer has shown that in women past the menopause that roentgen treatment by action on senile ovaries occasionally brings about a disturbancy of the entire endocrine system. 3. Because the mortality is less than the incidence of malignancy and the end results are satisfactory. 4. Because it is difficult at times to diagnose coincident disease. With surgery, coincident disease of the tubes, ovaries, appendix and other adjacent structures is treated at the same time. 5. Because there is a little need for selection of cases, the only ones excluded are those which a surgeon would ordinarily defer upon general principles as poor risks, viz.: anemia, pulmonary tuberculosis, severe cardiorenal disease, diabetes, etc. Then, too, surgery is demanded in all cases requiring quick relief and in practically all patients below the age of forty.

MYOMECTOMY

Myomectomy, where possible, is the operation of choice in tumors of the reproductive period. While it is true that women with multiple fibromyomata do not become pregnant nearly as frequently as women with normal uteri, it is a fact that this operation will leave the uterus in a favorable condition for conception to take place, and in addition the ovarian function is conserved. W. J. Mayo states that this operation "holds an unassailable position in the treatment of fibroids of the childbearing period and should be done more often." Victor Bonney reports a series of 100 myomectomies and states that neither the number of tumors, position, menorrhagia or the degeneration present are a bar to this operation. He has removed as many as 30 tumors from a single uterus. This operation requires a great deal of ingenuity and a few points in technic may be mentioned. 1. The incision should be in the midline and the exposure should be adequate. 2. All unnecessary trauma should be avoided. 3. Gauze packing should be dispensed with if possible, as it favors adhesions. 4. Closure of the opening in the uterus should be by continuous catgut and care should be taken not to place too much tension on the sutures. 5. The peritoneal covering should be inverted by fine catgut so that only the final knot lies upon the serious surface. 6. When a number of growths are to be removed the incisions should be planned in such a manner as to be as few as possible and run in the same direction. If after myomectomy symptoms recur, then radium may be used, or hysterectomy may be performed.

HYSTERECTOMY

Hysterectomy is the operation of choice in— 1. Cases at or beyond the menopause. 2. Cases in which the fibroids are large, or so great in number that myomectomy cannot be satisfactorily performed. 3. All cases where early carcinoma is present. 4. All cases showing degeneration. 5. All cases where the tubes and ovaries have been destroyed by inflammatory disease.

The supracervical technic is the one most commonly employed and is quite satisfactory provided the cervix is normal. It is simple and safe. When properly done, it leaves a good pelvic floor with the vault of the vagina attached high in the pelvis, giving a satisfactory

support to the bladder. The chief objection to this operation is that it leaves the cervix, which may later become cancerous. Polak three years ago collected a series of 256 cases in which carcinoma had developed in a cervix left after supracervical hysterectomy. I have seen one such case. Schottlander, Spencer and Noble have shown by routine serial section in 900 total hysterectomies that carcinoma of the cervix actually co-exists in 2 per cent of all fibroid tumors of the uterus. The mortality of the complete operation is slightly higher than the supracervical, but when the surgeon may remove at the same operation an infected, lacerated or hyperplastic cervix which later may become the seat of carcinoma, then this procedure should be given the preference.

I wish to report a series of 100 cases treated by surgical methods. The operations were performed for pain, hemorrhage, rapid growth, mechanical obstruction, carcinoma and co-existing disease of the adnexa. The operations consisted of myomectomy, extirpation of polypoid submucous tumors and hysterectomy, both supracervical and complete. Of the 100 operations there were 78 hysterectomies and 22 myomectomies with 2 deaths, a mortality of 2 per cent for the series. As the two deaths followed hysterectomy the mortality for 78 hysterectomies was 2.5 per cent. Of the hysterectomies 30 were complete and 48 supracervical. Of the myomectomies 21 were abdominal and 1 vaginal. The youngest patient was 24 and the oldest 53, 73 were married, 30 had borne children, three others had been pregnant and miscarried.

A classification of symptoms was as follows:

Menorrhagi or metrorrhagia, 44 cases; pressure symptoms, 10 cases; referred pain or referred symptoms, 4 cases; rapidly growing tumor, 1 case; fever and toxemia associated with necrosis, 1 case; severe pain due to subserous pedunculated tumor with a twisted pedicle, 1 case.

The following complications were present:

Pyosalpinx, one or both tubes, 23 cases; ovarian cystoma, 4 cases; carcinoma ovary, 1 case; carcinoma cervix, 2 cases; carcinoma corpus, 2 cases—(32 cases).

Other operations performed at the same time were as follows:

Perineorrhaphy, 12; perinoerrhaphy with anterior colporrhaphy, 8; hemorrhoids, 3; fistula in ano 1; appendectomy, 44.

Myomectomy during pregnancy, three cases; one went to full term, one miscarried four months after operation, one miscarried two months after operation.

Degenerations encountered were as follows:

Hyaline degeneration, 4 cases; cystic degeneration, 2 cases; necrobrosis, 1 case; necrosis, 1 case; myomaotus, 1 case; calcareous, 1 case.

CONCLUSIONS

1. Symptom producing fibroids are surgical and should be treated by the surgeon or under his supervision.

2. X-ray or radium may be used in uncomplicated tumors where the only symptom is hemorrhage. X-ray or radium should be used where surgery is contraindicated, as in cases with severe anemia, pulmonary tuberculosis, diabetes, or severe cardio renal disease.

3. Surgery is the treatment of choice in (a) all tumors of the reproductive period. (b) All tumors associated with adnexal disease. (c) All tumors associated with degeneration or carcinoma. (d) All tumors causing pressure, hemorrhage or other acute symptoms.

NON-OPERATIVE TREATMENT OF CATARACT

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For many years ophthalmologists have been searching for a medicinal treatment of cataract. Many theories have been advanced, some of which have therapeutic value. Any method which cures or delays the advance of the cataract to the stage where discontinuance of work is necessary, demands consideration.

To the average layman the word cataract is associated with malignancy. He hears about some relative or friend who had an operation without a good result. There are very few lenses in which slight opacities cannot be demonstrated. These are the congenital white points which have no pathological significance, hence do not concern us at this time.

The most frequent type encountered is the so-called senile cataract which occurs usually after middle life. We are now fortunate to have the modern slit lamp and corneal microscope to aid in the early diagnosis of lenticular pathology. If medicinal therapy is of any value it is in the early cases.

The senile cataract consists of wedge-like opacities which are water cracks between the lens fibres. In between these wedge shaped opacities are fine and coarse dot-like opacities which are minute water droplets. It is the latter form of opacity in the senile cataract which disappear under medical treatment. The complicated form of cataract is secondary to a disease such as diabetes, choroiditis, uveitis, focal infection, myopia, retinal separation and glaucoma. The complicated type begins in the region of the posterior capsule of the lens and presents a very definite picture. It is extremely important to recognize this and institute a search of the body for the causative factor.

If the complicated cataract is allowed to proceed to maturity the operative prognosis is not

favorable. By remedying the underlying cause the progress of the cataract may be arrested, and combined with medicinal measures improvement frequently occurs.

TREATMENT

The treatment may be divided into four phases:

1. Hygienic.
2. Dietetic.
3. Local.
4. General.

Under hygienic treatment are included all agents which improve the metabolism and pertain to the health and welfare of the patient. Eyestrain should be avoided by frequent careful examination for refractive errors, which should be corrected. Careful adjustment, fitting and explanation of the proper reading light insures less ocular discomfort. Foci of infection, including the gastro-intestinal tract, should be corrected.

Diabetes, if present, can be controlled by diet alone or in combination with insulin. This is a frequent cause of the complicated cataract and by proper regulation of diet improvement usually occurs.

Local applications have received more notice than any of the other forms. Each author ardently supports his method. Instillations or subconjunctival injections act to increase the circulation in the anterior part of the eye. A large number of medical preparations are advocated. Dionin is the most frequently used and most acceptable because of its stimulation of the local lymph vessels. A tolerance is established unless this drug is used intermittently. Mercury cyanide is also used frequently subconjunctivally. This is more irritating than dionin and less efficacious.

Electricity, X-ray and radium have not proved of value in the tratment of cataract. Potassium Iodide or the syrup of hydriodic acid should be given. Verhoeff showed that 8 per cent of all people are hyperpersitive to the protein of the lens. Recent work published by Davis showed that 65 per cent of patients with immature cataracts were improved and 90 per cent of the cases arrested by the injection of the lens protein antigen in desensitizing doses. This is based on the theory of Roemer that cataract is a specific metabolic disease and that the lens protein acts as a specific protein having a selective action on the cataract.

COMMENT

An economic problem, in many cases serious, occurs when a patient loses his ability to pursue his vocation and becomes at first partial, later totally dependent on others for care. Any measure which will allow a patient to continue longer in his employment should be vigorously and religiously applied. The percentage of cases which show improvement under these measures justify careful attention and study being given to all cases of immature cataract, and the medical principles as outlined applied.

A METHOD OF RADICAL CURE OF FEMORAL HERNIA

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The anatomical impossibility of complete closure of the femoral canal and the number of recurrences following the ordinary technic for radical cure o ffemoral hernia led me a few years ago to devise a method in operating cases of femoral hernia which to date I have not seen described. I have had opportunity in the past year to work out the following technic in the anatomical laboratory, since which time we have operated two cases and the total cases including those which were previously operated total fifteen. Three have had no recurrences.

A review will give quite clearly the anatomical knowledge to be considered in the anatomy of a femoral hernia. The femoral canal is bounded above by Poupart's ligament, beneath by the pubic bone, latterly by the femoral vein and medially by Gimbernat's ligament. Any attempt to bring Poupart's ligament to the pubic bone, as is well known, is sure to encroach upon the femoral vein. Therefore, this is an impossibility. If it be remembered that the iliac fascia is directly continued off the

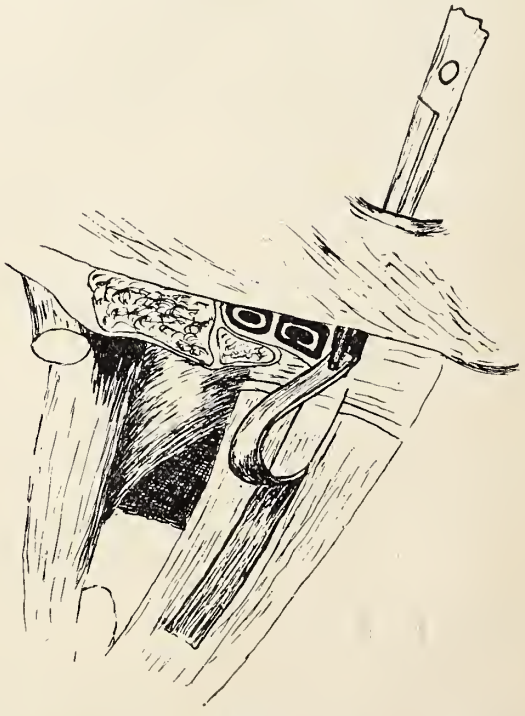


FIG. I.
Pulling strip of fascia through the femoral canal.

pubic bone on to the thigh forming or directly continuous as the fascia of the pectinous muscle, we can see that by a reflection upwards of the pectinous fascia, a complete anatomical closure is possible. The pectinous muscle is attached to the ascending ramus of the pubic bone directly beneath the femoral canal and continued downward, outward and slightly backward to be attached to the posterior surface of the femur. It will also be seen that there are only two anatomical structures to be taken into consideration in the following procedure; these are, the superficial and the deep external pudendal arteries. These, if necessary, may be sacrificed.

By a reflection upwards of the pectinal fascia as described, a complete and anatomically correct closure of the femoral canal is made. That is by reflecting the iliac fascia upward, making it continuous with fascia transversalis on the anterior abdominal wall. The method of procedure is as follows: A slightly curved incision is made concavely outwards, beginning about an inch above Poupart's ligament and extending downward over the hernial protrusion two inches below Poupart's ligament. An angular incision may be made, the two limbs of the incision coming to a point just above the hernial protrusion. The incision is carried down through the skin superficial and deep fascia and the sac is sought for in the usual manner. The sac is now opened, its contents reduced and the sac ligated as high as possible. The lower portion of the incision is now deepened down to the pectenous, which should, if possible, be parallel with its fibers. Here we will be apt to meet the pudendal arteries which may be tied. By blunt desection, the fat over the pectenous muscle is wiped away and a strip of the pectenous fascia is now outlined parallel with its fibers and left attached to the pubic bone directly under the femoral canal. This flap is usually made about one-half inch wide and, one to one and one-half inches long. This, of course, should be made according to the size of the femoral canal. This strip of fascia is now raised and dissected well up to its attachment. The opening left can be closed with two or three interrupted sutures. A curved director or a rather sharply curved haemostat is now introduced into the femoral canal in front of the sac extended up between the parietal peritoneum and Poupart's ligament and is made to point about one-half inch above the ligament. This point can be felt just beneath the aponeurosis of the external oblique muscle. A small incision is now made parallel to the fibers of the external oblique aponeurosis directly over the point of the protruding director and the director shoved through. By grasping hold of the director with a small haemostat, the latter is made to retrace the path of the director, bringing the point of the haemostat from above downward beneath Poupart's ligament and anterior and below the peritoneal reflection, down through the femoral canal. The strip of fascia which was previously raised, is now caught and pulled upward, completely closing the femoral canal. A couple of stitches will now fix the strip of fascia to Gimbernat's ligament, also Poupart's ligament. The fascia is now caught by a couple of stitches which at the same time completes the rent in the external oblique aponeurosis and completely fixing the fascia. The incision is now closed in the usual manner.

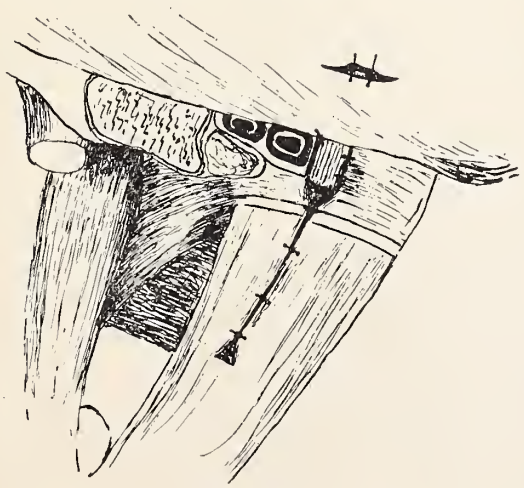


FIG. II.

Completed operation—note the stitches anchoring the strip of fascia to both Gimbernat's and Poupart's ligament.

THE SPLENIC SYNDROMES*

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GENERAL CONSIDERATIONS

There is in the body a widespread group of tissues, one of whose functions is to produce white blood cells. Landau and Aschoff called this group the reticulo-endothelial system. It is composed of the lymph sinuses and blood sinuses, the Kupffer cells of the capillaries of the liver, the capillaries of the bone marrow, the adrenal cortex and hypophysis, and the scattered endothelial tissues of the body generally. One of the most important aggregations of these tissues is in the spleen, which, like other elements of the group, has varied functions. It is rather characteristic of the members of the reticulo-endothelial group to undergo changes with increasing age, many of these tissues. like that in the spleen, reach their greatest functional activity at the adolescent period of life, thereafter gradually undergoing senescence, so that often in middle and later

*Lecture on surgery given before the Medical School of the University of Michigan, Ann Arbor, November 19, 1925.

life they become more or less infiltrated with fibrous tissue. It is noteworthy in this connection that the splenic syndromes are usually found in persons in the first half of life.

We have been prone, in the past, to speak of certain changes in the body as congenital, as though they took place only in prenatal life. As a matter of fact, such changes are continuous throughout life. Paget, in his fascinating book on surgical pathology, written more than fifty years ago, described the natural deterioration of age as the "calmness of decay, due either to a reduction in quantity, as in the withering of age, or to a reduction in quality, as in the obesity of age." Again, he speaks of the senile processes as the replacement of vital tissues by non-functioning material, causing atheroma, arteriosclerosis, and so forth, "as though man were becoming more earthly in preparation for the grave."

C. H. Mayo nearly thirty years ago pointed out the changing character of the lymphatic system with age, showing that the lymph nodes reach the height of their function in early adult life, after which they gradually undergo atrophy and progressive fibrosis; he suggested that these senile changes are probably the chief reason why cancer does not progress in old persons as fast as in younger persons.

It is a common experience to see middle-aged persons with tonsils, which had been very large in childhood, so small as the result of progressive atrophy that they can hardly be detected under the pillars of the fauces.

Ribbert points out that the appendix, an organ containing considerable lymphoid tissue somewhat similar in structure to the tonsils, undergoes progressive obsolescence, atrophy beginning at the tip and slowly progressing until the organ becomes converted into a fibrous cord, a condition formerly called appendicitis obliterans. Ribbert found in a general necropsy service that the appendix showed obliterative changes in about 25 per cent of persons twenty-five years old, in 50 per cent of persons fifty years old, and in 75 per cent of persons 75 years old. It sometimes happens that a fibrous appendix is removed because it is not recognized as normal for a certain age period, but is believed to represent chronic appendicitis, called "appendicitis obliterans."

There is some evidence that the nuclei of cells control growth and the cytoplasm control function. MacCarty and Broders point out that in malignant disease the cytoplasm does not differentiate normally, whereas the nuclei undergo rapid development, and the greater the deviation of the cytoplasm from the normal in relation to the nuclei, the greater the malignancy. In other words, the more nearly the behavior of the cell approaches the normal, the less malignant the growth. Perhaps the nuclei of the malignant cells, by controlling the rate of oxidation of carbon, instead of the necessities of function controlling it, permit the tumor to rob the normal tissue of nutrition, which it converts into functionless growth.

Tissue form appears to depend on the nitrogen and the small amount of sulphur of protein which permit the deposition of other elements, such as calcium. It is interesting to speculate about just what controls the nitrogen balance; possibly it is controlled by the nuclei of the cells. Nuclear material contains much nitrogen.

Considering the diverse character of the tissues which constitute the reticula-endothelial system, one would expect to find and does find a wide range of white cells, with many individual variations in number and size of the nuclei, and rapidity of cell division.

The lymphocyte, without which healing would not take place, is one of the most important of the white cells. Carrell, in his beautiful work on the immortality of tissues, says that by supplying lymphocytes and removing the effete products, he has been able to keep fibroblasts alive and growing more than twelve years. The lymphocytes evidently elaborate from the serum all that is necessary for nutrition and growth as well as repair. Again, while it has been demonstrated that all white cells have a defensive function, the large mononuclear endothelial white cell, of which the specific pulp cell of the spleen is an example, is a most active phagocytic agent, attacking and engulfing micro-organisms, cancer cells, and foreign bodies too large to pass through the walls of the blood vessels. These organisms and foreign bodies are eventually carried into the lymphatic system where they are destroyed, or are finally passed into the circulating blood, causing general bodily infection, as in tuberculosis and cancer.

Krogh has demonstrated that only bodies of molecular size can pass through the walls of the blood vessels, except in the portal system where colloid-sized particles can gain entrance. Intestinal absorption of substances of microscopic visibility takes place through the agency of white cells, which carry these larger particles into the lacteals.

The Liver—Mann's classical study on extirpation of the liver was of far-reaching importance. He and his collaborators, Bollman and Magath, showed that not only does sugar disappear from the blood and urea formation ceases in the absence of the liver, but also that under certain conditions jaundice occurs. Although it was known that the bile pigments had their origin in the pigments resulting from the destruction of the red cells, it was believed that the liver was the essential agent in the formation of the bile. With the aid of a series of experiments in spectral absorption by Sheard, they demonstrated that the actual destruction

of the red cells and formation of bile take place in the cells of the whole reticula-endothelial system and that the liver filters the bile from the blood stream.

The adult red blood cell is not nucleated, and therefore has no power of reproduction or growth. It is purely an oxygen carrier. As shown by Greene, the hemoglobin of the red cell, to each molecule of which iron contributes one atom, carries about 20 per cent of oxygen by volume, in loose combination. The work of Ashby, of the Mayo Foundation, showed that the red cells live much longer than had previously been supposed, undoubtedly many weeks. The oxygen-carrying capacity of the red blood cell explains the effectiveness of transfusions of blood in relieving anemia, which is essentially a condition of suboxidation.

The spleen—A consideration of the function of the reticula-endothelial system in connection with the activity of the spleen helps to elucidate some very perplexing problems. The spleen is only one of a large group of tissues of similar function, and this explains why its removal causes little or no change in the functions of the body. As a matter of fact, the spleen is much more important pathologically than physiologically.

The spleen has an enormous blood supply through the splenic artery, while the splenic vein is part of the portal system and provides about 20 per cent of the portal circulation in health, and many times that amount when the spleen is enlarged by disease. When the blood vessels pass into the splenic pulp their middle and outer coats are lost and the endothelium of the pulp cells comes into direct contact with the blood stream. The spleen contains a small amount of nonstriated muscle fiber so it has a certain rhythmical contraction, seen in its enlargement following a meal and its shrinkage several hours afterward.

The spleen may be considered as: (1) a filter, (2) a producer of lymphocytes and phagocytes, and (3) a destroyer of deteriorated red cells.

As a filter the spleen separates various micro-organisms, foreign bodies, and toxic substances from the blood stream which are destroyed by its phagocytic activities or carried to the liver for destruction or detoxication. The function of the spleen is therefore closely related to that of the liver, which is the source of the blood plasma. Failure of splenic function is seen in the enlargement of the spleen due to its inability to destroy the micro-organisms which it has removed from the blood stream, or rid itself of them, resulting in the splenomegaly of syphilis, malaria, and sepsis.

The spleen is an active producer of white cells, with temporary functional enlargements in times of stress, expressed pathologically by the enormous increase of embryonic white cells characteristic of the leukemic states.

An important function of the spleen is the destruction of worn-out or deteriorated red cells, an action in which the relation of the spleen to the bone marrow is manifest. Unfortunately, anything which causes an enlargement of the spleen increases its power of destruction of red cells, as seen in the syndrome of splenic anemia. The destructive action of the spleen at times appears to be specific, as in its tendency to destroy the fragile red cells of hemolytic icterus, and the blood platelets in hemorrhagic purpura. Enlargement of the spleen is therefore a most important feature of the splenic syndromes, without regard to cause.

The diagnosis of splenomegaly at the present time rests largely on the ability to palpate the enlarged spleen beyond the free border of the ribs. Percussion is of small value, and the method of distending the abdomen with air or oxygen to determine the size and position of the spleen is of little practical use. Since the spleen often becomes adherent up under the diaphragm as it undergoes enlargement, it may reach a very considerable size before it can be detected by palpation.

Clinically, a chronic secondary anemia for which an adequate cause cannot be found suggests a possible splenic origin and should lead to careful examination of the constituents of the blood.

DISEASES OF THE SPLEEN

In an attempt to weave something like order into our knowledge of the obscure pathology of the spleen, I have analyzed 413 cases in which splenectomy was performed. MacCarty has carefully worked out the pathologic condition found in the spleens removed, and an attempt has been made to correlate the findings. Unfortunately, the pathologic condition is not always closely related to the clinical condition, but this may well be expected, since the spleen is only one of a number of organs or tissues that are concerned.

FINDINGS IN 413 CASES IN WHICH SPLENECTOMY WAS PERFORMED BETWEEN APRIL 1, 1904 AND OCTOBER 23, 1925.

Clinical Classifications	Cases	Hospital mortality
Disease due to infection and toxic agents	190	29
Disease associated with abnormality of the white blood cells	50	2
Disease associated with abnormality of the red blood cells	143	7
Splenic tumor	10	3
Surgical accident involving the spleen	10	
Indefinite and unclassified	10	1
Total	413	43

Some of the patients who died following splenectomy made a good recovery from the operation, but were not greatly benefited by it and remained in the hospital until death occurred. For this reason the hospital mortality is given rather than the operative, which would be much less.

DISEASE DUE TO INFECTION AND TOXIC AGENTS

There were 190 cases in which the cause of the splenic enlargement was probably an infection or a toxic agent or agents, but the causal micro-organisms were evident in the spleens in only forty-two of the cases.

Syphilis—In ten cases the chronic enlargement of the spleen was due to the spirochete of syphilis. The patients had been treated very thoroughly for syphilis for varying lengths of time without cure. In all the spleen was large and the anemia marked. It was interesting to note that while one patient died in the hospital, nine recovered rapidly after the operation and have remained well with little subsequent antisyphilitic treatment, although in more than half there were gummas in the liver as well as in the spleen.

Tuberculosis—In eight cases there was tuberculosis which appeared to be limited to the spleen. One patient died in the hospital some time after the splenectomy, from generalized miliary tuberculosis which was believed to be the result of piercing a vein by a needle carrying a ligature with which the pedicle was tied in a field that had been infected by the escape of tuberculous debris. The other seven patients recovered and have remained well.

Septic Splenomegaly—There were twenty-four cases of septic splenomegaly caused by a primary septic focus elsewhere in the body, with seven deaths in the hospital. All of the patients were in bad condition at the time of operation. Those who had septic endocarditis at the time the spleen was removed were not benefited and died during the next two or three months, usually from a form of terminal nephritis described by Libman. Although a number of the patients with septic splenomegaly made a good recovery, the death rate was too high for the prospect of cure in the average case, and in some of the cases it probably would have been better to have delayed operation, in the hope that greater immunity would develop. However, in selected cases of septic splenomegaly, immediate splenectomy should be considered. One patient in this group died from general septicemia, a streptococcus infection was possibly again caused by piercing a vein in a septic field with a needle and ligature in the difficult process of tying a short splenic pedicle. In such cases the vessels of the pedicle should be tied separately if possible.

Splenic Anemia—One hundred fourteen cases were classified as chronic splenomegaly of the so-called splenic anemia type, a syndrome of many causes characterized by intermittent or progressive destruction of red cells. The majority of the patients had the classical signs and symptoms; early enlargement of the spleen, hemorrhages from the stomach, and progressive anemia with leukopenia, and in many the disease had progressed to the Banti stage of secondary portal cirrhosis with ascites.

The mortality following splenectomy in cases of splenic anemia depends largely on how advanced a case the surgeon is willing to accept for operation. In every case in which the operation was undertaken the spleen was removed, regardless of consequences. It was probably poor judgment in some cases to continue the operation, when exploration showed an enlarged spleen adherent to the extent of a complete encapsulation, but at least, the unfortunate experiences led to better operative methods and emphasized two of the most important surgical axioms: the surgeon must see what he is doing, and he must leave a dry field.

The fact that most of the patients with advanced splenic anemia made a permanent recovery makes it difficult for the conscientious surgeon to refuse to operate, even in the terminal stages of the disease, if, after careful examination, the patient decides to accept the risk. The pathologic condition found in the spleen in cases of splenic anemia was the usual picture of thrombophlebitis, atrophy of the pulp cells, and an enormous amount of fibrous deposit.

It is interesting to note that the pathologic histology of the spleen in cases of splenic anemia remarkably resembles that found in cases of septic splenomegaly and in those of syphilitic splenomegaly, except that no micro-organisms could be cultured. It would be quite legitimate to assume that the condition of the spleen was the result of infection, the causative bacteria of which had disappeared as a natural process. But if so, why should the enlargement not only persist, but gradually increase and lead to severe anemia, and death, usually from intercurrent disease? Again, it might be assumed that the disease of the spleen was the result of a toxic condition, secondary to an infection, or perhaps to other toxic substances filtered out of the blood in the spleen and sent on to the liver. The latter possibility is corroborated somewhat by the frequency with which portal cirrhosis of the liver was found, evidently secondary to the condition in the spleen.

It is surprising that so many of the patients in a terminal condition, with hemorrhage from the stomach and advanced cirrhosis of the liver with marked ascites, not only recovered, but for many years have remained well and able to work. One may assume that the removal of the spleen checked an inflow of at least 20 per cent of the blood tributary to the portal circulation as well as preventing the entry of toxic substances into the liver through the splenic veins, thus greatly reducing the work thrown on the liver. Again, the bed of the spleen would furnish a large space for adhesions and the development of collateral circulation. Of the 10 per cent of patients who died in the hos-

pital following splenectomy, the majority died from progressive thrombophlebitis extending from the splenic pedicle into the portal system. On the whole the results of splenectomy for splenic anemia were good, although 10 per cent of the patients who recovered from the operation died during the next ten years from hemorrhage of the stomach.

Portal Cirrhosis—The favorable results of splenectomy in the secondary portal cirrhosis of the Banti stage of splenic anemia led to the removal of the spleen in nineteen cases of primary portal cirrhosis, with six deaths in the hospital. In these cases the spleen was enlarged, but the extent of the enlargement was not comparable to that in the cases of splenic anemia, and in no case did enlargement occur early in the disease. The history and clinical findings pointed to the disease in the liver itself being primary and enlargement of the spleen secondary.

Portal cirrhosis is of two types. The most common type is gastro-intestinal in origin, deduced from the fact that it is usually seen in alcoholic and in curry (pepper) habitues, for instance, in certain parts of India, where the disease is common, even in children. In this type the spleen is only moderately enlarged, and then rather late, as contrasted with splenic anemia, in which the spleen enlarges early and cirrhosis of the liver comes late, if at all.

Splenectomy for primary portal cirrhosis carried with it considerable risk, not because of difficulties in the operation itself, but because the patients all had ascites and were anemic from hemorrhages from the stomach, and many of them had nephritis. The patients who succumbed did not as a rule die soon after operation. They did not get well enough to leave the hospital and death occurred after some days or weeks. All were in a terminal condition at the time of the operation, and in several cases it would be fair not to charge the death to the splenectomy, since some of the patients who died in the hospital made a good operative recovery. Clinically it is difficult to estimate the functional activity of a cirrhotic liver, and the patients who dies following operation usually died from acute failure of hepatic function.

Rowntree has demonstrated that the dye, phenoltetrachlorphthalein, when given intravenously, is eliminated through the bile. Rosenthal estimated the time of normal elimination as a basis of a test of hepatic function, which it is hoped will permit better judgment of the function of the liver before the patients are subjected to splenectomy. The most serious contraindication to splenectomy for primary portal cirrhosis is that recovery is not as complete in these cases as after splenectomy for Banti's syndrome. On the whole, some form of Talma-Morison operation gives as good results as splenectomy for primary portal cirrhosis, with less risk. There exists, however, a group of typical cases in which removal of the spleen is indicated in portal cirrhosis and gives good results.

Biliary Cirrhosis—Biliary cirrhosis appears to be of two types. The common type is the result of obstruction and infection occurring in connection with stones and infection in the gallbladder and common duct, or obstruction with infection occurring in the pancreas and extending up into the smaller ducts of the liver. The liver is enlarged, congested, and soft, the jaundice comes on early, and hematemesis and ascites are usually terminal phenomena.

In the second type of biliary cirrhosis the spleen is markedly enlarged and the enlargement occurs early. There is chronic jaundice without infection of the biliary tract, which is slowly progressive, although the patient retains fair health for a considerable time. Certain of these cases might come under the obscure symptomatology so badly described by Hanot, others might be said to be complicated cases of hemolytic icterus, although without the usual blood findings. Unlike hemolytic icterus, the jaundice is obstructive, as there is bile in the urine, and the stools are clay-colored. In fifteen cases of this type the spleen was removed, with one death in the hospital. The results of splenectomy in these cases on the whole have been rather good. While the jaundice has disappeared in only a few instances, it has been greatly lessened, and many patients have been able to return to work and have lived a number of years in considerable comfort.

DISEASE ASSOCIATED WITH ABNORMALITY OF THE WHITE BLOOD CELLS

There were fifty cases in which there were abnormal changes in the white blood cells.

Myelogenous Leukemia—The spleen was removed in forty cases of myelogenous leukemia, with two deaths. Neither death was the direct result of the operation.

It has long been known that anything which reduces the size of the spleen in splenomyelogenous leukemia reduces the number of white cells and results in great reduction of the anemia. We found that after the size of the spleen had been reduced with radium or X-rays, splenectomy could be performed with comparatively little risk. The patients were relieved of the large burdensome spleen, the blood count was greatly improved by reduction of the white cells and increase of the red cells, and some of the patients have been able to work for several years, two for more than five years, and one eight years, but in no case did the blood become normal. In several cases atypical splenic anemia might have been the better classifica-

tion. Treatment with X-rays and radium gives relief, but eventually protecting encapsulation of the outer coats of the spleen results, and radiologic treatment loses its effect. In selected cases of splenomyelogenous leukemia, especially the atypical types, in younger persons, splenectomy should be considered in the earlier stages.

Lymphosarcoma — Splenectomy was performed in four cases for lymphosarcoma, with no operative deaths, and the results were surprisingly good. One of the patients lived seven years, bore two children, and eventually died from lymphosarcoma, which metastasized to the lymph nodes and lungs.

Lymphoma and Hodgkin's Disease—Splenectomy was performed in three cases of lymphoma, with cure, and in one case for Hodgkin's disease, without benefit.

DISEASES ASSOCIATED WITH ABNORMALITY OF THE RED BLOOD CELLS

Splenectomy was performed in 143 cases in which there was abnormality of the red blood cells, with seven deaths.

Hemolytic Icterus—The most common condition was hemolytic icterus, of which there were sixty-eight cases, with four deaths. The results in this group are as brilliant as any achieved in surgery. The strong points of the diagnosis were the large spleen, and the jaundice, in the presence of bile pigment in the stool and its absence from the urine, proving the hemolytic origin of the jaundice. It is interesting to note that two-thirds of the patients, even young patients, had gallstones. Because of the infection and obstruction produced by the gallstones this particular feature of the diagnosis may occasionally be clouded. Fragility of the red cells existed in nearly all the cases and usually continued after splenectomy. In the idiopathic type described by Hayem and Widal splenectomy should be performed early. In the familial type described by Minkowski, many of the cases are mild and operation can await necessity, but in all severe cases of the familial type splenectomy should not be postponed, since the mortality from hemolytic icterus, when not in the terminal stage, is very small.

Hemorrhagic Purpura—Splenectomy was performed in nine cases of hemorrhagic purpura with no deaths. The improvement following removal of the spleen was immediate and lasting. The blood platelets rose from between 30,000 and 60,000, to normal, 225,000 to 400,000 or above, in from forty-eight to seventy-two hours. While the blood platelet count is the sheet anchor in diagnosis, in several of our cases this count was not reduced sufficiently to have great value in the diagnosis.

Polycythemia—One patient with typical polycythemia, with a greatly enlarged spleen, has been marvelously improved by splenectomy performed more than four years ago. The red cells decreased from 12,000,000 to about 6,000,000. The hemoglobin has been lowered from 130 per cent to 100 per cent.

Pernicious Anemia—In this group there were sixty-two cases and four deaths. Again, it is difficult to estimate just how much good splenectomy has done. Immediate improvement practically always occurred. Some of the patients have been in good condition and able to work more than five years. That there is a small group of atypical cases which as yet are classified as pernicious anemia, and in which great benefit will be derived from splenectomy, there can be no doubt. Generally speaking, the younger the patients and the shorter the duration of the disease, the better the prognosis.

Aplastic Anemia—There were four cases of aplastic anemia, and splenectomy did little or no good. It is quite probable that in some of the earlier cases in which the spleen was removed for supposed pernicious anemia, aplastic anemia would have been the proper diagnosis.

MISCELLANEOUS CONDITIONS

Of the remaining thirty cases in which splenectomy was performed, ten were indefinite and unclassified for lack of knowledge. In twenty cases splenectomy was performed for tumors, traumatisms, and surgical accidents.

The most important surgical observation was that the properly rehabilitated patient recovered from the splenectomy, while the patient on the down grade or operated on during a splenic crisis was subjected to a serious and usually unnecessary risk, a lesson taught by bitter experience. By proper choice of cases for splenectomy and careful preoperative preparation, the mortality following the operation should not exceed 5 per cent, without denying the right of a chance for life to any patient.

MEDICAL POLICIES*

F. DUNBAR ROBERTSON, M. D.
GRAND RAPIDS, MICH.

Ladies and Gentlemen of the Kent County Medical Society:

I am quite sure that my successor, whom you will elect this evening, will feel as flattered and honored as I did when I was chosen to preside over your meetings during the past year. No one can retire from the president of the Kent County Medical Society without appreciating the tremendous compliment which has been paid him. I am quite confident that the

*President's Annual Address—Kent County Medical Society, December 16, 1925.

new president, to whom I will hand over this office, will meet with a far greater measure of success than have I, and I most heartily congratulate him. His opportunities will be many, but I fear his perplexities will be more. Indeed, I feel that each and every one of the presidents of this and other medical societies, will, in the next five or ten years, be called upon to solve, with the aid of the society and committees, many very knotty and serious problems, chief among which, I think, is the spectre of state medicine which hovers over us. There tion, the free clinic question, and educational are many others, too, such as the publicity quesand other problems.

Having practiced medicine since 1886, and having been brought up in an atmosphere of medicine, as it were, my father having practiced medicine for nearly fifty years, may I be permitted to give you a birds-eye view of some of the changes that have taken place during that period, from an ethical and social point of view rather than scientific?

Nowadays we hear a tremendous amount about publicity, whatever that may mean to you, and later I will try to define the word and state what it ought to mean to the medical man, and what I believe ought to be its limitations. Now, in thinking about publicity in all its many phases, it has occurred to me to ask myself this question—"What has come over the medical man of late years? What changes have taken place in his character and environments? What change in the public mind is it that makes him feel that he has perforce to seek aid from the press?" Most assuredly it was not necessary forty years ago, nor indeed thirty nor twenty years ago, although in the early part of this century it became apparent that physicians were determined to bring themselves, their personalities and medical opinions pertaining to health and hygiene, before the public through the press. Ten or more years ago I well remember how surprised I was when I was asked for my photograph, which was to be put in one of the local papers along with those of thirty or forty other medical men of the city, and how surprised the press representative was when I refused his request. But to tell the truth, I was more surprised, in a day or two, to see, staring at me from the printed page of one of our evening dailies, the faces of many of our well known medical men of the city. Needless to say, forty years ago that never would have been thought of.

After thinking things over I have about made up my mind that our troubles really begin from within. The old saying that familiarity breeds contempt, is, I think, only too true in our profession. Where is the dignified, courtly physician to be found today? When I look over the years I can remember the type of man that ornamented the profession. Of course, from the standpoint of pure science he was a child compared with the man of today. In many other respects, however, he was vastly his superior. His family loved him, the public respected him, and, indeed, he compelled respect. He was a man of dignity and education from a literary standpoint. He was beloved by his patients, and looked up to by all. He was much nearer to and more in the confidence of the people than the clergy. He was not only the doctor, but the advisor, the faithful repository of family secrets, the one to turn to in time of trouble. His was not a business, but a profession. He spoke of his practice, not of his business. Today, even the very leaders of our profession are saluted by a "Hello, Doc" by the man on the street.

If the elderly man of forty years ago should rise from his grave, I am sure that one of the most astonishing things that would come to his notice would be the fact that the medical man of the present day permitted his patients to treat him with the utmost familiarity.

In this country, especially, in those days, medical education was in a chaotic state. There were a few good medical schools, such as Harvard, Johns Hopkins, Ann Arbor, Pennsylvania, the College of Physicians and Surgeons, McGill, and others, and there were a lot of very inferior schools, grading down gradually to the worst type of diploma mill. Is not the present condition of our profession in relation to the public—I mean the lack of respect for our profession—at least in part due to the fact that in the past our standards have been so low? Thirty or forty years ago it was almost impossible for the public to discriminate. How could it tell, when the young doctor came to town, whether he was a graduate of a good university, or a product of one of the diploma mills? And not knowing, except by very dearly bought and hazardous experience, the difference between the scientist and the charlattan, it was as often deceived as not, and came at last to characterize all physicians as "Docs."

So now we feel that we must resort to publicity in some form in order to educate the public that medicine is becoming rapidly a science instead of an art. In the old days, both in this country and abroad, a medical course in the best schools was one of two, three or four years, depending somewhat upon whether you had an A.B. degree or had taken less serious preparatory work. Today we have advanced so far along medical educational lines that our Dr. Pusey is now advocating shortening the collegiate courses rather than lengthening them. So that forty years ago the great problem that confronted us was education, but today the president of the A. M. A. feels that our medical courses are unnecessarily long. While it

was not true in the early eighties, I claim that the student of today can get a better rounded and more complete medical education in America, which, of course, includes Canada, than in any other region on the face of the globe. Practically, we are well up to a definite standard, and that standard is a high one. Now it is claimed by many, and I myself believe it to be partly true, that in our efforts to give the individual complete medical training, we have forgotten to educate the public to the fact that our art is gradually approaching a science. The old imperialism has gone and more scientific methods have taken its place, and apparently with our added knowledge the viewpoint of the medical man has changed too, in respect to his public, and this again brings us to the question of publicity.

PUBLICITY

Now from a medical standpoint, what is publicity as distinct from advertising? Let me quote from a letter from the general manager of the largest publicity and advertising concern in the United States, which letter was in answer to one I had written him asking him to give me his ideas as to the demarcation between publicity and advertising. He says in part:

> Newspaper men and those in the advertising business make somewhat the following distinction in using these two terms. Advertising is material designed to have a direct effect on scales, and therefore appears in distinctive physical form in advertising columns of publications.
>
> Publicity is generally held to include the presentation of informative material, in news or editorial columns. In many cases a distinction between advertising and publicity must be determined by the intent of the distributors of the material in question, i. e., by the integrity of the source. The standards by which their intent may in turn, be measured, are the business, journalistic or professional ethics involved. In the business field, for example, the so-called publicity that amounts to nothing more or less than free advertising, and whose purpose is to secure without cost the mention of any manufacturing company or trade organization, or the name of any trade marked product, is at variance with the best journalistic and business ethics. The man who tries to get commercial advertising for nothing; who tries through so-called publicity, to get a sales message across, without paying advertising rates, is in pretty much the same class as the tax dodger, or the man who never pays his bills. In other words, getting something for nothing is always economically unsound. When it comes to a consideration of news stories about individual physicians, or any organized group of physicians, the question of the ethics of the medical profession is projected violently into the foreground. If the preparation of such stories constitutes unfair sales methods as determined by professional etiquette, then their distributors are in the wrong. In other words, it is not a question of whether such stories are publicity or advertising, for they may well be both, but rather of the principles involved.

Such, then, are the views held by a lay authority on advertising and publicity. Now many medical men, probably, have a very difierent idea as to what constitutes publicity. For my part, I do not deny that educational publicity of any sort is good for the public and advances the interests of the medical profession, but it should never, I think, be individual, but always eminate from a medical society or university.

The London correspondent of the Journal of the A. M. A. writes that the British Medical Association has adopted an important report from the central ethical committee in re: "Publicity". The report points out that from time to time there are discussed in the lay papers, topics that have relation both to medical science and policy and to the health and welfare of the public, and it may be legitimate and even advisable that physicians who can speak with authority on the question at issue, should contribute to such discussions, but physicians who take this action ought to make it a condition of publication that laudatory editorial comments relating to the contributor's professional status, shall not be permitted; that his address or photograph shall not be published; and that there shall be no unnecessary display of his medical qualifications and appointments. There is a special claim that physicians of established position and authority shall observe these conditions, for their example must necessarily influence the action of their less well known colleagues. After making all allowances for those modes of publicity for which there may be some justification, there remain many instances that can be regarded only as gravely and unnecessarily contravening the spirit of the notice of the general medical council. The extension of the practice of discussing medical topics in the lay press, can lend only to a competition for public notice in which the abler and more scrupulous men would be left behind by those who are inferior, to the detriment of the public who are ill qualified to judge of the true worth of scientific opinion.

This then is the voice of the British Medical Society in regard to publicity, and fairly represents what I believe to be the correct attitude. It might be of interest to recall to your mind the resolution that was passed at the annual meeting of this Society, December 13th, 1916:

> Moved: That it be the sense of the Society that the name of none of its members appear in any local paper in connection with medical news, and that a committee be appointed by the president

to wait upon the local papers, advising them of this action, and requesting them to withhold all physicians' names from the medical news articles.

This resolution was moved by Dr. Ferris N. Smith, and was unanimously adopted, and an amendment was tacked on asking the president to appoint a censorship committee. It seems to me that that was a very sensible and timely solution, and one that should be lived up to to the letter.

CLINICS

Let us for a moment dwell upon the free clinic and social welfare agency question. Let us consider what is going on in Grand Rapids.

We have the three hospital clinics, the Orthopedic clinic, the Preventorium, and Infant Feeding Clinic, the T. B. Clinic, and others, all of which are thought necessary to the community, and capable of doing a tremendous amount of good. However, very many very badly need regulation. Medical men, in discussing this matter with me, at least those with whom I am brought in contact, feel that they are very improperly supervised. Let us, for instance, by way of illustration, take the so-called Baby Clinic. Now, I personally, know nothing about this clinic as, I am not and never have been on its staff, but before, during and after the time that a certain resolution was passed at the last meeting of this society, I took pains to inform myself about its workings, by asking a number of medical men to tell me their complaints, and I asked them not to deal with generalities, but to be specific. Each and every one with whom I talked, recited specific instances of the gross est misuse. For instance, a young man of very good standing in the profession, told me the following: That he was on the staff of the Baby Clinic; that on a few occasions, for one reason or another, he could not attend on his day; that he telephoned, excusing himself; that on the following day several mothers came with their babies to his office and paid a fee for advice, but not until he had been upbraided for not going to the clinic the day before. For, as the patients would say, if he had gone to the clinic it would not have been necessary for them to go to his office. In other words, to put it in another way, it is very pleasant to get something valuable for nothing.

It does seem to me that inasmuch as doctors have done, and are now doing all in their power to prevent disease, and as has been well said, are altruistically devoted to professional suicide, they should at least be permitted to get fees from patients abundantly able to pay.

Another well known man told me that he no longer attended the clinic, and that he had resigned some time ago because he found his pay patients there, and so had to give it up.

A well known surgeon told me that the mother of a little baby upon whom he was to do some hernia repair work, was told by one of the nurses of the Baby Clinic, who called, by the way, at her house unsolicited, that that was not the way it was done in the Baby Clinic, and advised her to bring the baby to the clinic, where a truss would be put on.

I have the names of doctors who can give specific instances of nurse prescribing and changed formulae while the doctor was actually in attendance.

In beginning a letter written to me some months ago, a prominent medical man of this city expressed himself as follows:

> In Grand Rapids we have a number of free clinics, a very few of which are being conducted in a correct and ethical manner. The majority are privately supervised by individuals who do not know that they are usurping certain principles strictly within the jurisdiction of the medical profession of the city.

Again he said:

> Our hospitals, all three of them, Blodgett, St. Marys and Butterworth, have established clinics, either general out-patient clinics or special clinics, and I feel myself, and from conversations I have had with other men serving on them, that they are not conducted in proper manner because the hospital is receiving benefit for medical service rendered, that really should go to the doctor. When this movement branches out into the community, as it undoubtedly will if something is not done to check it, the inevitable end will be that the doctor will either have to depend upon a small high class pay practice, or else become associated with some free clinic for a menial salary.

The doctor likened the whole thing, in his summary, to a number of small forest fires within a short radius of each other, gradually making headway and approaching each other until they finally flare up into an unmanageable immense menace.

But, why, gentlemen, should we complain? Is it not our own fault? Are not all our troubles from within? Are we not spineless? From my point of viem, I think we are. Are we not from a moral standpoint, cowardly? As a witty confrere put it the other day, "We have been made the goats, and we do nothing but bleet. Is it not time that we did a little butting?" Are we willing individually and collectively to stand up and manfully fight for the right? In the end, gentlemen, the public cannot do without us, nor can the free clinics do without us. We, the Kent County Medical Society should see to it that all the clinics of

this city be properly supervised. They should be placed, all of them, under a governing board, and they should be centralized at the three hospitals, and be under the supervision of a paid superintendent who would be strictly accountable to the board of governors.

POLICIES

Gentlemen, I have nearly run my race. At the very best I can only have a few more years of active work, so that it can and does make very little difference to men of my age nor to myself whether these abuses be allowed to continue or not, but to the young and middle aged man it is a vital question, and to my way of thinking, we have it in our own hands. We can take one of two roads. We can drift into state medicine, or each can be his own man.

The drift toward state medicine is very rapid, and I very much fear that unless our publicity methods and the presenting of a solid front to the public by the medical societies do not avail, that a short time will see state medicine an accomplished fact. Do we wish to see our economic standing swept away? You all know what happened in Great Britain. The average man from the standpoint of science, was put in the position practically of a trades apprentice, with less than the emoluments of the master craftsman. The standards of medicine, on the whole, were immeasurably lowered, and today, in self defense, as he could not make a decent living, he has adopted what to all intents and purposes, is trades unionism, to the end that his position has been greatly bettered. Scientific standards have been raised, and he can again make a decent living. The evidence that we are drifting towards state medicine is all around us. Free clinics and hospitals, with full time men conducted them, paid by industrial institutions and labor associations, welfare associations of all kinds, with little regard to whether the patient is able to pay or not, proposals to outfit county hospitals at the expense of the tax payers to be used by said tax payers to obtain cheap or free medical service; this then, gentlemen, is what is going on today, and what is advocated by many medical men. For instance, Dr. Cabot, of the University of Michigan, proposes to develop health centers, governed by the University, manned by salaried professors, and supported, of course, by state funds. In contrast, let me here read to you the resolution which was adopted by the Chicago Medical Society as represented by its council:

WHEREAS, A great deal of confusion having arisen during recent years as to who should be entitled to free medical and surgical service; and,

WHEREAS, Certain hospitals, lay medical groups and social agencies are organized to treat the sick under the name of charity, irrespective of the ability of the recipients to pay even a reasonable fee; and,

WHEREAS, There seems to have sprung up the idea among social workers that a family receiving as wages or income anything less than $125 monthly is entitled to free medical service; and, nurses and social workers, who visit the sick,

WHEREAS, We often see in the instructions to "if in your judgment the family is entitled to free medical service . . . ," which leaves the decision entirely with the nurse or social worker making the call; and,

WHEREAS, The Chicago Medical Society is anxious and willing to serve without recompense, all those who are in need of free medical service, but in justice to the public who do not desire medical pauperization, we do not believe medical service should be given indiscriminately; and,

WHEREAS, Many flagrant violations of Medical Charity have come to the attention of the Medical Society in recent years, in which hospitals, or social agencies have been a party thereto, mainly through lack of information as to what "Charity" really means; and,

WHEREAS, The Chicago Medical Society should take the initiative in defining medical charity in the sense that physicians shall give their services free to those desiring the same, therefore be it

RESOLVED, That the Chicago Medical Society go on record as favoring free medical service to all individuals or families who are receiving charity of any other kind or description, and be it further

RESOLVED, That we view with alarm the tendency of hospitals and social agencies and health departments to pauperize the public medically by giving free medical service to those who can afford to pay even a reasonable fee; and, be it further

RESOLVED, That any member of the Chicago Medical Society, whether through a hospital, social agency or health department, or as a private physician, who shall aid such institutions in pauperizing the public, may be brought before the Ethical Relations Committee to determine whether or not he has been guilty of unethical conduct, and be it further

RESOLVED, That a copy of this Resolution be forwarded to every hospital, every social agency in Chicago, and to the Health Department, together with a letter calling special attention to the definition of "Medical Charity" as outlined by the Chicago Medical Society.

The authors of this resolution doubtless had in mind the following: "A man who thinks himself hard up and feels that he should have some help,—does he go to the coal dealer, and say, 'Mr. Coal-dealer, I am paying for my home. I want you to send me a couple of tons of coal.' Does he do this? Hardly. He knows that he will have to pay the full price per ton. And so it is with the grocer, the clothier, and the landlord. When it is time for him to pay his taxes, does he go to the tax office and say

that he should have a reduction in his taxes or not pay them at all? He does not. He knows that that would do him no good whatever. He knows that the municipality, if he does not pay his taxes to the last cent, will take from him his property. He can go to the poor master, however, and if found worthy of charity he is given his dole. That dole may be a ton of coal or an order for groceries, and the coal dealer and grocer are paid by city funds, but the doctor, the poor doctor, is supposed and does most generously, at all times, give his services to those whom he feels are in need, without stint and without pay. He does this ungrudgingly and willingly. Now don't you think, gentlemen, that it is high time that the charity organizations realized that it is the doctor who should say to whom he shall give? God knows that he has been charitable in the past, and it seems to me that medical charity can be safely left in his hands, for he is ever merciful, put when organizations ask us to work for the well-to-do for nothing, it is certainly well to call a halt. If the community wishes to sovietize itself, well and good. We should at least stand on the same platform. Certainly the physician should not be singled out as a dispenser of largess to all. This sort of thing must be put to an end, and the public must be made to understand that the physician is the one to decide how much he shall give of his services, and to whom.

But why prolong the argument? He who runs may read. Is there, then, no remedy? Yes, I certainly believe there is. The remedy lies in the solidarity of the profession. We must forget our little petty jealousies. An association of physicians should be formed, within or without, or as an integral part of our society, the members of which should be obedient to the rules and regulations of the said association. In other words, to themselves they should be true. The by-laws and regulations should be those that should govern any association of high minded men in which the golden rule and charity should play a large part. This association should be a protective association, which would see to it that all free clinics and public charities that depends for their existence upon the medical man, are run for the benefit of the poor and not for the well-to-do. The association should see to it that all reputable men in the community be members; that they should formally agree when joining such association, to abide by the By-Laws and rules governing the same, and it should be understood that those who in vital matters, contravene the laws of the association, should be deemed scabs and outlaws in the profession.

I believe, gentlemen, that the time has come when some such plan will have to be tried. The medical man has made the hospital, the free clinics, and all medical charities possible. They are his children. Without him they cannot exist. His should be the authority first and last, to the end that charity should be given the indigent, and that just and fair emoluments be his portion from the well-to-do public.

In closing I suggest that the next meeting of our Society be devoted to a general discussion of this topic, and that such meeting, if possible, be attended by the entire Society.

THE JOURNAL

IS

YOUR FORUM—

WE INVITE YOU

TO UTILIZE

IT FOR THE

EXPRESSION OF

YOUR VIEWS

ON

MEDICAL SUBJECTS

PUBLIC HEALTH ACTIVITIES

Edited By

MICHIGAN DEPARTMENT OF HEALTH

CONFERENCE NOTES

Of interest to practicing physicians as well as public health workers were several of the papers read at the Fifth Annual Conference of Health Officers and Public Health Nurses held in Lansing, November 18, 19 and 20. The conference was conducted as usual under the joint direction of the Michigan Public Health Association and the Michigan Department of Health, with the largest attendance yet recorded,—274 health officers, public health nurses, engineers and laboratory workers.

The opening session was presided over by Dr. Guy L. Kiefer, President of the State Advisory Council of Health.

"The Mouth and Its Relation to Health," was discussed by Dr. Chalmers J. Lyons, Professor of Oral Surgery at the University of Michigan. Dr. Lyons called attention to the fact that it was only 15 years ago that the relation between oral sepsis and pathologic changes in any part of the body other than digestive disturbances was recognized. The marked decline within the 20 years period from 1901 to 1921 in the death rates from tuberculosis and typhoid—diseases which have been the object of organized control efforts—contrasts with the 25 per cent increase in the death rate from circulatory involvements. The influence of low grade infections on present day death rates is being recognized, and the part played by infections of the teeth and their investing tissues appreciated.

Of 8,000 patients recently studied at the University of Michigan dental clinic over 2,400 or 30 per cent gave history of some systemic lesion such as arthritis, heart or kidney involvement. Early recognition of oral sepsis is just as important as early detection of any other disease, the speaker stated.

Dr. Lyons stressed the fact that it is not the teeth that are the important element in this problem, but oral sepsis, with its tremendous waste in health and happiness.

TYPHOID FEVER DISCUSSED

Dr. A. J. Chesley, Health Commissioner of Minnesota, talked on "Epidemiology and Control Measures for Typhoid," discussing the various steps in typhoid control. Emphasis was placed upon the basic necessity of reports from physicians in a brief, complete and accessible form. To show the encouraging improvement in method of procedure, Dr. Chesley described several early outbreaks of typhoid in Minnesota when "roughneck" epidemiology prevailed and the epidemiologist did everything from surgical operations to janitor work. Contrasted with these early efforts were later epidemics, illustrating the various problems of transmission and control.

DR. DICK ON SCARLET FEVER

"Scarlet Fever" was discussed by Dr. George Dick of Chicago. Dr. Dick first gave the background of the present scarlet fever investigations by discussing the efforts of physicians during the two hundred years since Sydenham first differentiated it from other acute diseases accompanied by rashes. Many methods of inoculation were tried but none were successful and attempts were gradually abandoned.

Development of the science of bacteriology in the latter part of the nineteenth century gave renewed impetus to control efforts, and scientists turned their attention to finding the causative organism. Following the first description of streptococci, these organisms were found in the throats of scarlet fever patients. Later it was demonstrated that it was the hemolytic type which predominates, but its etiologic significance was still in doubt. No one had succeeded in producing scarlet fever experimentally in animals or man with a pure culture of any organism.

"In 1923," said Dr. Dick, "we were able to establish the hemolytic streptococcus as the cause of scarlet fever by a series of human inoculation experiments in which the strain of streptococci used fulfilled the requirements of Koch's law."

Before this, however, anti-streptococcic serum had been employed in attempts at preventive immunization. In 1902, in Vienna, was described the first anti-streptococcus serum for use especially in scarlet fever. The serum was obtained by immunizing horses with living serum-broth cultures of streptococci isolated from the heart's blood of fatal cases.

Since that time, various anti-scarlatinal serums have been employed, gradually fal-

ling into disuse because of lack of specificity and lack of potency in some instances, as well as too frequent and severe serum reaction, caused by the relatively large amounts of unrefined horse serum.

"Following the production of experimental scarlet fever, we were able to show that the hemolytic streptococcus, growing in the throat of the scarlet fever patient, produces there a soluble toxin which is absorbed into the blood stream and carried to all parts of the body. When it reaches the skin it causes the rash which is characteristic of the disease," continued Dr. Dick. After the discovery of the specific toxin and the corresponding antitoxin, it was clear that if some means could be found of supplying antitoxin early in the course of the disease the chances of recovery would be greatly increased.

This led to the production of antitoxic serum, put through the same process of concentration and refinement as is used in diphtheria antitoxin. The final product is standardized against the toxin and the potency is expressed in the number of skin test doses of toxin neutralized by one c.c. of serum.

The antitoxin is put out in prophylactic and therapeutic doses, and the former should be one-half of the latter. When given early and in adequate dosage this concentrated and standardized scarlet fever antitoxin has been found to shorten the course of the disease and reduce the number of complications and sequellae. Dr. Dick emphasized the fact that the antitoxin used as a prophylactic conferred a passive, transient immunity, just as diphtheria antitoxin used with contacts.

Active immunization by hypodermic injections of gradually increasing doses of sterile scarlet fever toxin has been observed at the Durand Hospital for three years, and not one case of scarlet fever has developed among the undergraduate nurses so immunized.

For the prevention of scarlet fever when no epidemic exists, Dr. Dick advocated the skin test, the reaction to be observed between twenty-two and twenty-four hours after the test is made. Persons showing a positive skin test should be actively immunized by injections of graduated doses of the sterile toxin.

In the event of an epidemic, the speaker outlined a more complicated procedure. Skin tests should be made on all contacts and at the same time nose and throat cultures taken on blood agar plates. The skin tests can then be observed at the same time as the cultures. Persons showing negative skin tests are not immunized and if their nose and throat cultures are negative for hemolytic streptococci, they are not isolated. If the cultures contain hemolytic streptococci, the individuals should be isolated from susceptible persons. If the skin test is positive and the nose and throat cultures negative for hemolytic streptococci and further exposure to scarlet fever patients or to immune carriers can be avoided, the susceptible persons are immunized with toxin.

When the nose and throat culture is positive for hemolytic streptococci a prophylactic dose of antitoxin may be given or one may wait for the development of any symptoms of scarlet fever and then give a therapeutic dose of antitoxin. This passive immunity should be followed by active immunization with the toxin.

UNIVERSITY PRESIDENT SPEAKS

The speaker at the one evening session of the conference was Dr. Clarence Cook Little, president of the University of Michigan. Dr. Little talked "as a human biologist" on the general subject of the rights of childhood, emphasizing the necessity of sane limitation of offspring as the first step in protection.

"It is unchristian to encourage the production of children who will be unwell and unhappy. Our problem is to prevent the mental defectives and children of criminal tendencies from being born. Every child should be guaranteed proper care and protection. We must serve youth first of all."

In discussing methods of sterilization, Dr. Little condemned the use of the X-ray because of the uncertainty and lack of permanence of results. He described the experiments on mice carried on in his own laboratory in which monsters had appeared several generations after X-ray sterilization had been carried out. The danger of using on human beings any method that had not been completely demonstrated by animal experimentation was stressed.

Dr. Little reiterated the fact that civilizations based upon care of the adult were bound to fail, and that childhood was the only enduring foundation upon which to build.

HEALTH RATING OF CITIES DESCRIBED

In a joint discussion of the plan of rating cities on their accomplishments in public health work, Dr. George T. Palmer of the American Child Health Association and Dr. W. J. V. Deacon of the Michigan Department of Health brought out both the background of the plan and its application to Michigan.

Dr. Palmer told of the purpose of the plan,

"to permit accurate expression of health work in common units, since the existence of a common unit makes comparison possible, and comparisons are an antidote for apathy on the part of the public."

The various branches of municipal health activity were assigned definite ratings, a certain number of points out of a possible 1,000. Vital statistics scores 60 points, communicable disease control 175, venereal disease control 50, tuberculosis 100, child health 350, sanitation 175, laboratory 70, and popular health instruction 20.

Dr. Deacon reported upon the rating plan as it has been applied to eleven Michigan cities within the past year. The average rating was 537.4 of the possible 1,000, the scores ranging from 330 to 710. While Dr. Deacon criticized the values assigned to the various items of public health work, it was his opinion that the attempt to get a definite and uniform accounting of activities was of decided benefit.

PUBLIC HEALTH AND PRACTICING PHYSICIANS

Dr. Guy L. Keifer in a paper on "The Health Department and the Practicing Physician" emphasized the necessity of a better understanding between those who are doing public health work and the physician in private practice. Dr. Kiefer asserted that all experience goes to prove that public health activities are of direct financial benefit to the medical profession, contrary to the opinion sometimes expressed by objectors. Increased appreciation of the value of medical care is an inevitable product of increased health education of the general public.

DIPHTHERIA PROTECTION FEATURED

Diphtheria protection was given special time and emphasis on the conference program because of the intensive Michigan campaign. Dr. Frederick Sears, District State Health Officer from Syracuse, New York, was the main speaker, reading a paper on "To What Extent can Diphtheria be Eliminated by Means of the Schick Test and Toxin-Antitoxin Mixture?"

Dr. Sears first called attention to the fact that immunity is the foundation upon which practically the whole structure of communicable disease prevention rests. The beginning of the new era in diphtheria prevention came in 1913 with the discovery of the Schick test and toxin-antitoxin.

The technic of the Schick test was discussed at some length. "First, we must have reliable toxin preparations in order to insure the accuracy of the test. Second, careful technic must be observed in order to place a definite amount of toxin-antitoxin into and not under the skin, and the doses should always be measured and not estimated. Third, the interpretation of the test must be carefully made, giving the individual the benefit of the doubt. Syringes should be accurately graduated and the needles selected as to size and points. Under the above conditions I believe that the test is absolutely reliable."

Omission of the preliminary Schick test was approved by Dr. Sears in the case of rural communities and among English speaking races, where from 85 to 95 per cent of children show a positive Schick reaction. Its use was advocated, however, in dealing with Polish and Italian children because of the racial difference in immunity. In the city of Auburn, New York, the positive Schick reactors among the Polish children were 26 per cent, among the Italian children 36 per cent, and among the English speaking races 82 per cent. The average for all races was 60.5 per cent.

The necessity of giving the completing Schick test from six months to a year after the treatments was particularly stressed by Dr. Sears. Neglect of this not only risks the safety of from 10 to 20 per cent of the children, but also discredits the entire movement.

The city of Auburn was used as an example of the results of general immunization. In 1922 work was begun, the matter being taken up first at the local Medical Society meeting where nearly all of the physicians were Schick tested to demonstrate the simplicity of the test. School authorities, organized groups, and the press were then called in. During that year 58 per cent of the school population were treated, all of these children being given the Schick test and over 90 per cent of those showing positive reactions given the three doses of toxin-antitoxin.

Results were striking. The 42 per cent of the children, those whose parents did not consent to immunization, were used as a control, and records showed that 80 cases of diphtheria and 13 deaths occurred in this group. Among the 58 per cent protected there were but 5 cases of laboratory diphtheria, all but one of which proved to be Vincent's angina occurring in diphtheria carriers. The other case came too soon after toxin-antitoxin treatment for full protection to be secured. There were no deaths.

In 1923 the percentage of those protected was raised to 73, leaving only 27 per cent of the children susceptible. During that year there were, among the 27 per cent, 15 cases of diphtheria resulting in one death, while in the 73 per cent of immunized children

there were only three cases, two of laboratory diphtheria which proved to be Vincent's angina in diphtheria carriers, and one death, the cause of which was questionable.

In 1924 a new campaign secured additional consents and the percentage of treated children was raised to 85. Since that time there has not been a death from diphtheria in the city of Auburn. Proof that the drop in the diphtheria case and death rates was not a natural drop is found in the unchanged incidence of adult cases.

In a few cases it was necessary to give a third series of treatments to secure a negative Schick.

There have been no serious reactions from any treatments.

ROLL CALL SHOWS MICHIGAN SITUATION

A roll call of health officers and public health nurses registered at the conference showed that more than 100,000 Michigan children have been protected against diphtheria with toxin-antitoxin within the past year. Dr. George H. Ramsey of the Michigan Department of Health, conducted the roll call, reading written reports sent in by those who could not be present.

KAHN TEST DISCUSSED

"The Public Health Value of the Kahn Test" was discussed by Dr. R. L. Kahn of the Michigan Department of Health. Dr. Kahn showed the particular need of a reliable blood test to help physicians in their diagnosis of syphilis because this disease, especially in the latent stage, manifests itself in every conceivable condition. He gave a brief survey of the development of the laboratory diagnosis of syphilis from the discovery of spirochete pallidum by Schandinn in 1905 to the present time.

In connection with the Wassermann test, Dr. Kahn discussed its value and its limitations—showing how its complexity and sources of error were an incentive to workers in developing a simpler and, if possible, superior test. He then touched upon the important events in the development of precipitation tests, leading up to his study of the precipitation phenomenon in syphilis in 1921 and the evolvement of the Kahn precipitation test.

In calling attention to the recent abandonment of the Wassermann in favor of the Kahn test as the routine diagnostic procedure in the Michigan Department of Health laboratories, Dr. Kahn spoke of the advantages of such a step from a public health point of view. The comparative simplicity and resulting ease of standardization, the directness and rapidity of obtaining results are all in favor of the precipitation test. The fact that this test does not require unstable animal reagents makes it readily available in any part of the world under any conditions.

PREVALENCE OF DISEASE

November Report—Cases Reported

	October 1925	Nov. 1925	Nov. 1924	Average 5 years
Pneumonia	337	496	244	345
Tuberculosis	353	399	463	418
Typhoid Fever	211	84	92	148
Diphtheria	476	474	565	1214
Whooping Cough	521	564	302	378
Scarlet Fever	667	877	1018	1145
Measles	160	411	403	435
Smallpox	13	20	91	211
Meningitis	12	9	11	10
Poliomyelitis	10	13	94	25
Syphilis	1349	986	1047	804
Gonorrhea	1093	850	763	849
Chancroid	9	6	13	14

CONSOLIDATED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health
October, 1925.

	+	—	+—	Total
Throat Swabs for Diphtheria				1367
Diagnosis	40	537		
Release	180	237		
Carrier	6	344		
Virulence Tests	10	13		
Throat Swabs for Hemolytic Streptococci				900
Diagnosis	241	332		
Carrier	68	259		
Throat Swabs for Vincent's	29	547		576
Syphilis				7973
Wassermann	567	2035	38	
Kahn	1005	4257	67	
Darkfield		4		
Examinations for Gonococci	163	1530		1693
B. Tuberculosis				452
Sputum	87	343		
Animal Inoculations	2	20		
Typhoid (Incl. Kalamazoo State Hosp.)				362
Feces	37	191		
Blood Cultures	2	36		
Urine		12		
Widal	16	68		
Dysentery	1	99		100
Intestinal Parasites				27
Transudates and Exudates				338
Blood Examinations (not classified)				474
Urine Examinations (not classified)				340
Water and Sewage Examinations				745
Milk Examinations				78
Toxicological Examinations				15
Autogenous Vaccines				12
Supplementary Examinations				542
Unclassified Examinations				269
Total for the Month				16263
Cumulative Total (Fiscal year)				96521
Decrease from this month last year				5699
Outfits Mailed Out				14298
Media Manufactured, c.c.				383200
Diphtheria Antitoxin Distributed, units				27936000
Toxin-Antitoxin Distributed, c.c.				71150
Typhoid Vaccine Distributed, c.c.				7696
Silver Nitrate Ampules Distributed				5384
Examinations Made by Houghton Laboratory				1336

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

PUBLICATION COMMITTEE
R. C. Stone, Chairman.....Battle Creek
A. J. Mac Kenzie.....Port Huron
J. D. Bruce.....Ann Arbor

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Grand Rapids, Michigan

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The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications, or advertisements.

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JANUARY, 1926

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

A NEW YEAR

"The want of energy is one of the main reasons why so few persons continue to improve in later years. They have not the will, and do not know the way. They 'never try an experiment' or look up a point of interest for themselves; they make no sacrifices for the sake of knowledge; their minds, like their bodies, at a certain age become fixed. Genius has been defined as 'the power of taking pains'; but hardly anyone keeps his interest in knowledge throughout a whole life. The troubles of a family, the business of making money, the demands of a profession destroy the elasticity of the mind. The waxen tablet of the memory, which was once capable of receiving 'true thoughts and clear impressions,' becomes hard and crowded; there is no room for the accumulations of a long life. The student, as years advance, rather makes an exchange of knowledge than adds to his store."

The above is quoted from Jowett's introduction to his translation of Plato. It seems to us to be a fitting thought for each to mull over as he enters upon a new year—an additional year of life. Should you not so do that a "fixed " mind be avoided? You can maintain the elasticity of mind if you but purpose it.

Our wish then, that accompanies our Happy New Year greetings to you is that by your intermingling with your fellows this coming year, you will attain an elasticity of mind, fellowship and friendship.

ANNUAL MEETING REFERENDUM

On December 9, a letter and return postcard was mailed to every member requesting him to voice his preference as to the type of program desired for our 1926 Annual Meeting, and also whether he preferred that the meeting be held in the spring or fall of the year. The Council is extremely desirous of providing a program for our Annual Meeting that will appeal to the majority of members and reflect their wishes.

Last year we departed from the customary section meetings and held four general clinical meetings. Many favorable comments were received for that type of meeting, while on the other hand, there were some who expressed dissatisfaction. It was impossible to determine the exact sentiment, hence the referendum vote. If you have not recorded your desires, please fill out and return the postal card in order that the Council may have this vote to guide it in arranging for our 1926 Annual Meeting.

REFERENDDUM

To the Members of the Michigan State Medical Society:

Dear Doctor:—

I am directed by the Council to take a Referendum Vote of the members of the Michigan State Medical Society relative to certain features and policies for the holding of our 1926 Annual Meeting, and submit the following proposition with the request that you voice your sentiment on the enclosed postal card which you are requested to promptly mark and return.

Proposition 1. Shall the 1926 Annual Meeting be conducted in so far as the Scientific Program is concerned, as it has been our custom in the past several years, by holding several section meetings during the two days of our Annual Session?

Proposition 2. Shall the Annual Meeting be conducted as far as Scientific Program is concerned, along the lines that were carried out at the Muskegon meeting, September, 1925?

Proposition 3. Shall the Annual Meeting be composed of one day of Section Meetings, and one day of General Meetings?

Proposition 4. Shall the Annual Meeting be held in May or June of 1926, or in the fall of 1926?

As indicated your prompt return of the enclosed card is requested in order that the Council and your Officers may promptly undertake the arrangements for a suitable and satisfactory program for our Annual Session.

Yours very truly,

Secretary-Editor

COUNTY OFFICERS

Many, if not most, of our County Societies have held their Annual Meetings and elected their officers for the coming year. It is to these new officers, and to the members, that we proffer the following suggestions:

Your election to office is not an idle honor. It is not to be presumed that all that is entailed consists of the right of being addressed as Mr. President, or Mr. Secretary. Your acceptance of the office implies that you are willing to assume all the duties that accompany the office and that you are willing to contribute much time, sustained effort and continued thought in order that you may properly acquit yourself of the definite responsibility that you have assumed. If you are unwilling to make such contribution, it will be far better for yourself and for your members to step aside and let someone else take your place. Officers of County Societies are not and must not be figure heads. They are the leaders and directors of organized medical activity in their respective counties. They must think, live and act society work day and night, during their entire term of office. It is theirs to plan, to inaugurate, to direct activity and to enlist and hold the support of all their members. They must inspire, interest and co-operate while at the same time setting a worthy example. Officers should delegate the work to committees and individuals. Having done so, concern yourself with supervising and stimulating committee accomplishments. To retain close contact with your committees means achievement of results.

DUES

Annual membership dues for 1926 are now payable through the Secretary of your County Society. We desire to urge upon each member a prompt payment. Your State Society is achieving much for your personal profit and advancement. It is conserving your interests. It will do so on a more extended scope in 1926. Relieve your local secretary and do not necessitate his assuming the role of collector, by promptly sending him your check. Thanks.

COUNCIL MEETING

The mid-winter session of the Council will be held in Ann Arbor on Thursday, January 14, 1926, in the Michigan Union, for the transaction of such business as may properly come before this executive body.

The first session will be at 12 m., fast time, when the Council meets with the Joint Committee on Public Health Education.

The second session will be held at 2:30 p. m., for the receiving of official reports and the reports of Council committees.

The third session will be held at 6 p. m., when the Council meets in conference with representatives of the Medical Department of the University, the Detroit College of Medicine and surgery, the State Board of Registration in Medicine and the State Department of Health.

The fourth session will be at 9 a. m., Friday, January 15, 1926.

J. B. Jackson, Chairman.
F. C. Warnshuis, Secretary.

Editorial Comments

Dr. Wm. S. Reveno, of Detroit, has kindly consented to serve as the Detroit Correspondent of The Journal. The doctor will thus keep our readers informed as to medical activities in Wayne County, while at the same time create a permanent record of medical progress in our largest component unit.

A conference of members of the State Department of Health, Faculties of the Medical Department of the University and the Detroit College of Medicine and Surgery, the State Board of Registration and our Council will be held in the Michigan Union on January 14th. The purpose of the conference is to discuss and enhance inter-related activities.

Probably the greatest cause of all mal-practice claims is the sometimes malicious, but generally thoughtless, unguarded statements made by one professional man as reflecting upon another. Therefore, it is important to be on guard when any patient comes to a member with criticism as to the services rendered by another member of the profession.

It is absolutely human for any man to take pride in his achievements as he makes a success in the practice of his profession in any one or more directions. He is entitled to take pride in his accomplishment, but it is unnecessary for him to discredit a fellow member of the profession for any such reason. Bear in mind the old proverb, "Do unto others as you would have others do unto you," and it will save you and our whole profession much unfavorable publicity and undesirable unnecessary notoriety.

The traffic in narcotic drugs is a danger to the whole civilized world. There is a steady increasing threat against the welfare of all races and nationalities, of all communities, in every corner of the inhabited earth. In order that you may become rightly enlightened as to this urgent problem we recommend that you read "Opium," an account of the traffic in Narcotic Drugs by John Palmer Gavit, formerly editor of the New York Evening Post.

The recently established Council of Physiotherapy of the A. M. A., will render to the profession a service that will equal that of the Council on Pharmacy. Many extravagant and unreliable claims have been made for certain types of electric machines and lights for therapeutic use. One believed, for he had no way of refuting the claim. With the Council on Physiotherapy's endorsement of a light or electric apparatus one can purchase equipment that is guaranteed to be a therapeutic value.

We direct attention to the reports from our

County Societies. In particular do we commend the activities reported by Kalamazoo, Alpena and Tri-County. Ingham and Genesee reflect sustained activity. These reports demonstrate what can be accomplished. Start your local activity by placing your individual support at the services of your officers.

The art and Practice of Medical Writing compiled and written by Doctors Geo. H. Simmons and Morris Fishbein, Editors of The Journal of the A. M. A. is the most practicable and dependable guide existant upon the subject. Every medical editor will be eager to see its wide dissemination. We urge that you secure a copy and refer to it when compiling an article and have your stenographer use it as a reference guide. It is from the press of the A. M. A.

The 1926 Annual Meeting of the A. M. A. will be held in Dallas, Texas, the week of April 19th. Excellent arrangements are being perfected.

MINUTES OF THE DECEMBER EXECUTIVE COMMITTEE MEETING OF THE COUNCIL OF THE MICHIGAN STATE MEDICAL SOCIETYY

1. The Executive Committee of the Council met in its monthly session in Grand Rapids on December 1st. The following members were present: Chairman J. B. Jackson, R. C. Stone, Geo. L. LeFevre, F. C. Warnshuis, and Harvey George Smith.

2. The Secretary called the attention of the Executive Committee to the fact that because of the nature of our last Annual Meeting, no section meetings were held, and consequently no section officers were elected. Under provisions of the Constitution and By-Laws the old section officers hold over until their successors are elected. The problem was presented as to the type of meeting we were to hold in 1926. Inasmuch as the Council was to determine the time and place at its January meeting, it was recommended that an expression be secured from our membership as to their preference.

On Motion of Dr. Corbus, supported by Dr. LeFevre, the Secretary was directed to submit a Referendum to all our members of three plans of meetings.

First, the plan that has been in vogue for many years.

Second, the plan as carried out at the last meeting in Muskegon.

Third, a combination plan wherein there would be general sessions of all the sections on one day, and separate meetings on the second day.

The Secretary was also directed, in the referendum to secure an expression as to whether the meeting should be held in the spring or in the fall.

3. The Secretary presented a financial statement, at the close of business, November 30th, which represented a satisfactory financial condition. The Secretary was also directed to request the Chairman of the Medical Legal Committee to present at the Annual Meeting a certified audit of the funds of the Committee. It was definitely stated that this was solely for the information of the Council and not for general publication and purely as a business policy.

4. The Secretary presented the suggestion of President Darling, that at the time of the Annual Meeting of the Council a joint session should be held with the members of the faculties of the University Medical Department, the Detroit College of Medicine and Surgery, and representatives of the State Board of Registration in Medicine, and the State Department of Health, for the purpose of discussing inter-allied problems, contacts and activities. The Secretary was directed to arrange for this meeting at 6 o'clock on the evening of January 14, 1926, at the Michigan Union in Ann Arbor. It was determined that the Chairman of the Council should act as Chairman of that joint meeting and that the invitation should be limited to the professors of the two faculties.

5. The Committee, on conference with the Regents of the University to the establishment of a Post-Graduate School, reported progress and stated that a complete report would be submitted at the Annual Meeting of the Council.

6. The Secretary was directed to prepare a budget for 1926 and submit it to each member of the Council at a reasonable time before the Annual Meeting in order that each Councilor might have an opportunity to become familiar with its provisions. The Secretary also stated that he was endeavoring to submit to each member of the Council, before the Annual Meeting, a statement of the financial expenditures for 1925.

7. Dr. Jackson discussed in a general way the possible plans for newspaper publicity that were being considered by his committee and stated that he would present more detailed plans at the Annual Meeting of the Council.

8. The Secretary presented the problem of office records and stated that the system now employed and which had been established some thirteen years ago had served its purpose and that it either should be replaced or a new system installed. On Motion of Dr. LeFevre, supported by Dr. Stone, the Secretary was authorized to install the system that his judgment deemed most efficient.

The meeting adjourned at 9:15 p. m.

Secretary-Editory.

Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

Editor of The Journal:

I want to commend the fine, altruistic educational work that is being done by these Post-Graduate Conferences.

It, no doubt, is very gratifying to the Councilor Chairman to hear the sincere exprcssions of satisfaction and appreciation of the "Progressive" doctors attending these Conferences.

Let the excellent work go on.

Chas. G. Morris, M. D.,
Three Rivers, Mich.

Editor of The Journal:

Let me congratulate you on your editorial, "Christmas Greetings," in December number of State Journal. This article carries so much of truth and brotherhood that I cannot refrain from offering you my sincere thanks for same.

Our State Journal has made great improvement

during the past year and through its efforts the Medical profession is moving forward along the whole front. May the good work continue, I am

Yours truly,
C. J. Sutherland.

Editor of The Journal:

As Secretary-Editor of our State Medical Society, I consider you the embodiment of that which is the highest in standing of all Medical Societies, and it is through you, that I thank the body most sincerely for the great honor conferred by electing me unanimously an honorary member, especially honored at this late day "when the shadows begin to lengthen."

I also greatly appreciate that, when you made this official announcement and thank you warmly for your personal remembrance.

Can you realize, doctor, as I look back over a distance of many years, that your worthy father, ("now among the departed spirits on High made Perfect") and myself were inmates in the old VanVleck Hall, Holland, pounding over our Classics.

Sincerely and cordially yours,
A. VanderVeen.

Editor of The Journal:

Referring to the referendum card enclosed I wish to add: That I believe General Scientific Meetings can be made very attractive and more profitable as well, if the conditions under which they are conducted are correctly arranged.

Aside from adequate seating capacity and good ventilation the most urgent need is to eliminate noises, at least such noises are were met with at Muskegon.

The auditorium in which meetings are held might well dispense with the presence of advertising exhibits.

All things considered I am inclined to think that fall meetings are better attended than spring meetings.

Sincerely yours,
C. C. Clancy, M. D.

Editor of The Journal:

Your letter of October 16, informing me that the Executive Committee of the Council approved the preparation of a slip urging diphtheria immunization, and its use as an enclosure with physicians' monthly statements and other mail has been received.

May I call your attention to the enclosed letter to physicians and to the final copy for the slip?

It is possible that this rather unique method of educating the public in disease prevention, suggested by Michigan physicians, has been used elsewhere but if so, I am not aware of it. I believe that the plan is an unusually good way of showing that toxin-antitoxin immunization is generally approved by the medical profession, and that the physicians are, as is so often the case, working to defeat their own ends by eliminating diphtheria from their practice.

I hope that you will be willing to publish this communication and the circular letter in an early issue of The Journal.

Yours very truly,
R. M. Olin, M. D.,
Comissioner.

Editor of The Journal:

Enclosed is a copy of a slip urging diphtheria immunization. The preparation of this slip was suggested by several physicians who wished to enclose it with their monthly statements and other mail.

The slip and its use in this manner were approved by the Executive Committee of the Council of the State Medical Society at their meeting held on October 15, at Grand Rapids.

Sending out these brief notices will bring to the attention of the public very clearly the fact that toxin-antitoxin immunization is advocated both by their own physicians and by the state health department.

We will be glad to furnish any quantity of the slips you desire without charge.

Are your children protected from diphtheria?

Harmless, but effective toxin-antitoxin treatments can be obtained from your physician.

Help us make diphtheria ancient history in Michigan.

R. M. Olin, M. D.
State Commissioner of Health.

State News Notes

The new addition of 50 beds to Hurley Hospital, Flint, Michigan, is completed and is rapidly being furnished. It will be ready for occupancy in a few weeks.

Doctors Randall, Bird and Max Burnell, of Flint, attended the meeting of the American College of Surgeons in Philadelphia during October. Dr. Burnell was made a member at that time.

Plans are under way for a new addition to the Women's Hospital, Flint, Michigan.

An Orthopedic Clinic has been established in connection with the Flint Public School system for the organization and disposal of such cases.

J. F. Gruber, M. D., of Cadillac, gave a talk before the Mason County Medical Society at the Hospital at Ludington, December 1, 1926.

Election of Tri-County Medical Society officers: H. Joe Smith, M. D., Cadillac, President; S. C. Moore, M. D., Cadillac, Secretary. S. C. Moore was also elected delegate to State Society. W. T. Smith, Alternate.

Paul W. Bloxsum, M. D., a former member of the Tri-County Medical Society and located at Cadillac, has opened an office in Grand Rapids, Mich.

J. F. Corrou, M. D., who has been practicing at Marion, Mich., has taken over the practice of P. W. Bloxsum, M. D., at Cadillac, Mich. The Tri-County Medical Society welcomes Dr. Carrou to Cadillac.

That the Wayne County Society is enjoying one of its successful years is attested to by the excellence of the programs and the large audiences that are always on hand.

On November 16, Dr. Paul Titus, of Pittsburgh, Pa., delivered a most illuminating talk on the treatment of the "Vomiting of Pregnancy."

On November 23rd the Society indulged in its annual Feather Party.

The following week a very practical and instructive paper was read by Doctors Clark D. Brooks, W. R. Clinton and L. B. Ashley, on "Enterostomy and Its Surgical Indications."

December 7, Dr. Frederick M. Allen, of the Physiatric Institute of Morristown, N. J., opened a new avenue of thought with his discourse on the treatment of pernicious anemia.

The program for December 14 was handled by Dr. Jas. W. Inches, who but recently returned from an extensive trip through Africa with a variety of highly interesting material regarding the dark continent. The evening was enjoyed by all the members.

An Amendment to the Constitution of the Society was adopted recently, changing the weekly meeting night of the Society from Monday to Tuesday. However, the change will not take place until next spring.

The Staff of the Deaconess Hospital has enrolled all of the institution's internes as Resident-Associate members of the Society.

The Detroit Branch of the American Urological Society gave a Pyelogram Clinic at Grace Hospital on November 24, 1925.

The East Side Physicians Association held a very successful social evening for members and their wives on November 19, 1925.

At the annual meeting of the Highland Park Physicians Club the following officers were elected for the ensuing year: President, G. Van Amber Brown; Vice President, A. A. Defoe; Secretary, H. L. Butler, and Treasurer, E. Holliday.

The North Central Branch of the American Urological Society held its annual meeting at Detroit on December 11th and 12th. Clinics and talks were given at the Detroit College of Medicine and Surgery, at the Book-Cadillac Hotel and the University Hospital at Ann Arbor.

At the annual meeting of the Michigan State Board of Registration in Medicine, held at Lansing, October 14th, 1925, the resolution adopted in 1923 (authorizing a practical clinical examination for all medical graduates at the completion of the hospital interne year) was rescinded. After a thorough consideration of the matter it was decided that the plan was not practical at this time; that it would work a decided hardship upon the students concerned, and that a very slight benefit was to be derived through the said examination.

Dr. Andrew P. Biddle, of Detroit, has been elected Library Commissioner by the Board of Education for a term of six years.

Dr. Emmett Welsh, Grand Rapids, was elected an honorary member of the Kent County Medical Society on December 16th.

Our Society Business and Activities

HARVEY GEORGE SMITH

EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

FLINT AND BATTLE CREEK POST-GRADUATE CONFERENCES

The Flint and Battle Creek Post Graduate Conference, held on December 9th and 16th, respectively, produced a winning climax for the series of Conferences held throughout the year. At Flint 102 physicians, coming from six counties, attended the program and at Battle Creek the highest attendance of the year was recorded, there being 121 present. This record attendance alone is sufficient evidence that the programs of the Conferences are valuable. Again, these two conferences were the second ones to be conducted within the respective Councilor Districts. "The proof of the pudding is the plum." The first plum in each conference evidently pleased the members of the County Societies composing the Third and Sixth Councilor Districts and made for the success of the last two conferences.

The following program was presented at Flint:

PROGRAM

10:15—Opening Statements.
H. E. Randall, M. D., Councilor, Ann Arbor.
10:30—Dermatological Clinic.
Udo J. Wile, M. D., Ann Arbor.
11:30—The General Practitioner and the Prostatic Case.
H. W. Plaggemeyer, M. D., Detroit.
12:00—Luncheon.
Informal talks; Dining room, M.E. Church.
1:30—(1) Hemorrhagic Disease of the New Born.
Clifford G. Grulee, M. D., Chicago.
(2) Acute Abdominal Conditions.
Cyrenus G. Darling, M. D., Ann Arbor.
(3) Extra-Abdominal Conditions Presenting Symptoms of Acute Abdominal Disease.
Mark Marshall, M. D., Ann Arbor.
(4) Orthopedic Clinic.
Chas. L. Washburne, M. D., Ann Arbor.
6:00—Dinner. Dining Room, M. E. Church.
(1) Nephritis from the Point of View of the General Practitioner.
Geo. C. Hale, M. D., London, Ont.
(2) Clinical Types of Gall Bladder Disease.
R. S. Corbett, F.R.C.S., London, Eng.

The following program was presented at Battle Creek:

PROGRAM

10:15—Opening Statements.
R. C. Stone, M. D., Councilor, Chairman.
10:30—The New Born.
T. D. Gordon, M. D., Grand Rapids.

11:00—Diseases of the Liver.
Plinn F. Morse, M. D., Detroit.
11:30—Pernicious Anemia.
Phil Marsh, M. D., Ann Arbor.
12:00—Lunch.
Speakers: Harvey George Smith, Executive Secretary, A. L. Miller, Editor, Battle Creek Tribune.
1:30—Orthopedic Examinations and Corrective Measures. F. C. Kidner, M. D., Detroit.
2:30—Feeding the Normal Infant.
T. D. Gordon, M. D., Grand Rapids.
2:30—Blood Vessels and Blood Vessel Accidents.
Plinn F. Morse, M. D., Detroit.
3:00—The Management of Fractures.
F. C. Kidner, M. D., Detroit.
3:30—Prenatal Care.
Geo. A. Kamperman, M. D., Detroit.
4:00—Hyperthyroidism.
Phil Marsh, M. D., Ann Arbor.
4:30—Modern Obstetrics.
Geo. A. Kamperman, M. D., Detroit.

HISTORY THROUGH REPORTS

At no time in the history of the Michigan State Medical Society and its component units has a better record been established by the Secretaries in reporting activities to the parent organization than during the year 1925. A comparative study of reports for the years 1924 and 1925 justifies this conclusion. During 1925, 31 Secretaries reported County Society activities one or more times to the State Journal, while the previous year only 20 Societies reported. Ninety reports were printed by the State Journal during 1925 and only 56 during 1924. The resume of reports as found in the Journal is as follows:

	1924	1925
Alpena	---	8
Barry	---	1
Bay	1	3
Berrien	2	1
Branch	---	2
Calhoun	5	3
Clinton	1	3
Eaton	---	1
Genesee	5	4
Gogebic	1	5
Gratiot, Isabella-Clare	4	4
Hillsdale	3	3
Houghton	9	11
Ingham	3	3
Ionia-Montcalm	6	5
Jackson	1	3
Kalamazoo Academy	1	2
Kent	1	1
Lapeer	---	1
Lenawee	---	1
Marquette-Alger	---	1
Mecosta	---	1
Muskegon	---	5
Monroe	1	---
Newaygo	1	1
Oakland	---	6
Sanilac	1	---
St. Clair	2	1
St. Joseph	1	---
Shiawassee	---	1
Tri County	---	1
Tuscola	---	1
Washtenaw	1	1
Wayne	---	6

The honors for reporting go to the Houghton County Medical Society, of the Northern Peninsula. Alpena runs a close second and Oakland and Wayne are tied for third place. The secretaries of these societies are to be especially congratulated for giving such complete records to the State Society.

This record is 50 per cent better than that of 1925. But even it, does not represent a complete account of what has been accomplished in each Society. Twenty-two Societies have not been heard from at all. The average report for each Society is less than two. It is agreed that this is not a very complete history of County Medical Society activities. It represents approximately 10 per cent of the possibilities.

For the year 1926 practically each County Society will have adopted a Minimum Program of Activity for County Medical Societies. This will mean that no less than 540 scientific meetings will be held during the coming year. It will mean that there is opportunity for the Secretaries to report 540 times to the State Journal.

While the Secretaries of 1925 have established a worthy record, the Secretaries of 1926 are urged to smash it by line plunges or by any combination of scribe, reporter, committee that will record a complete history of all the activities of the County Medical Societies for the New Year.

SKEPTICISM VERSUS ACCOMPLISHMENT

When the Michigan State Medical Society initiated a program of extension education in the form of Post-Graduate Conferences, the majority of the members of the Society looked with skepticism as to its value and possible results. Even the Council of the State organization had some fears for the outcome. Now that a year of trial in the new activity has come to an end even the most skeptical have become ardent supporters and propogandists. Unanimously it is now heard, "This is the biggest worth while piece of work that has ever been attempted by the State Society. I have gotten the value of my dues in attending one Conference." Others say, "I have received more from one of these conferences than from a State Meeting," or, "Years have passed since I have heard such an excellent group of speakers and gotten just what I need in my practice."

In these days of achievement, words alone are not the measure of accomplishment and success. To add undisputed facts and proof the following data is presented: Twenty-four Conferences have been held with an attendance of 1,596 physicians. Each Councilor District had one or more Conferences

during the year. In addition to the scientific programs for the doctors, 6,400 high school students representing 10 high schools were addressed, 715 members of 10 noonday luncheons clubs and 3,000 laymen at 10 public meetings. Thirty daily and weekly newspapers gave publicity by writing from two to six articles during the week that the Post Graduate Conference was being held for each District. A total of approximately one hundred thirty articles were written by these newspapers.

The following is the detail of the Post-Graduate Conferences held, the first of which was conducted at Traverse City and the last at Battle Creek:

District Number	City	Attendance
1	Pontiac	75
2	Jackson	120
3	Sturgis	84
	Battle Creek	121
4	Niles	82
	Benton Harbor (with State T. B. Society)	50
5	Grand Rapids	80
6	Owosso	45
	Flint	102
7	Port Huron	60
	Port Huron	60
8	Saginaw	80
9	Traverse City	60
	Cadillac	60
10	Bay City	110
11	Muskegon	65
12	Escanaba	40
	Marquette	45
	Houghton	55
	Sioux St. Marie	18
	Ironwood	60
13	Alpena	40
	Petoskey	45
14	Adrian	40
	Total	1596

Success, we say, has been achieved. But it has not come by chance, "as the wind wafteth the feather hither and yon." The result is due to a well planned program, the harmonious work of the Council, the Chairman of the Post-Graduate Conferences, each Councilor individually, the County Society Officers, laymen and editors, and the members of the County and State Medical Societies. To these officers, individuals and organizations, credit is due for the desire to help, to co-operate to make toward success. Each has had his part and each has done well. But all these could not have made the Conferences. All these individuals while an absolutely essential part of the success, were in the background quietly at work. The final approval was secured by the speakers. In only one instance during the conduct of the 24 programs was one absent and that for good reason. One hundred or more men, mostly from Michigan, but also from Chicago, Wisconsin and Canada, gave of their valuable time to help their fellows and to make the Conferences successful. Special thanks are extended to the Speakers by the State Society in behalf of all those who have attended the Post Graduate Conferences.

This, then, is the result for 1925 in Post-Graduate accomplishment.

GREETINGS AND RESPONSIBILITIES

New Years Greetings and Good Wishes are extended to the newly elected or re-elected officers, to the newly appointed committees or reappointed committees and to the members of the County Medical Socities by the State Society. Upon the officers and committees fall the responsibilities of directing the organizations whch alone represent the medical profession and the Science of Medicine throughout the state. What is to be accomplished during the New Year will be due in large measure to the interest, the enthusiasm, the foresight, and the tact of the chosen representatives in making the various organizations, harmonious units, friendly units, and active units in organized medicine. Every officer and committeeman occupies a position of trust. His duty and privilege is to fulfill the obligations of his office to the membership which he represents. The membership in any activity cannot rest upon idle oars, "to be wafted here and there as the wind bloweth," Membership in any County Medical Society is no listless honor. It has a two fold basis, one to receive and one to give. To receive for the improvement of self, the profession and the Science of Medicine, and to give, for exactly the same reasons. This idea is not inclusive of philanthropy for philanthropy is usually unwisely directed. It is to advance and to make progress in the Science of Medicine for the benefit of the profession. With such advances follow surely service to humanity throughout the state.

Officers, Committeemen and members accept our wishes. The interest of your State Society is with you from the beginning to the end of the New Year.

County Society News

GENESEE CO.

The Genesee County Medical Society on October 28th, 1925, closed one of the most successful years in its history. Eighteen regular monthly meetings were held. Eighteen outside speakers presented cases, gave talks, or read papers, on eighteen different subjects covering practically every branch of the profession. The subjects were all discussed very ably and practically, as well as scientifically, and constituted a very excellent post-graduate

course for the members of the Society. There was a seventy-five per cent average attendance throughout the year. The meetings were all of the noon luncheon type.

Throughout the year publicity was given to various medical subjects by medium of the Speaker's Bureau. This bureau consists of various members of the Genesee County Medical Society who volunteer their services as speakers to such organizations as Parent-Teachers' Association, the schools, and the various luncheon clubs.

The Minimum Program for County Medical Societies was unanimously adopted by this Society, although the suggestions contained in it have been the policies of the Genesee County Medical Society for some time.

I wish to express at this time the appreciation of the Genesee County Medical Society for the excellent service the State Society has given during the past through the medium of The Journal and the very efficient Executive Secretary.

Genesee County Medical Society met for noon luncheon at the Hotel Dresden, June 24, 1925. Dr. G. VanAmber Brown, Detroit, Mich., spoke on the subject, "Appendicitis in Children."

Genesee County Medical Society met for noon luncheon at the Hotel Dresden, September 23, 1925. Mr. R. Corbett, F. R. C. S., London, England, spoke on the subject, "Life of John Hunter."

Genesee County Medical Society met for noon luncheon at the Hotel Dresden, October 14, 1925. Dr. Darling, Grace Hospital, Detroit, Mich., spoke on the subject, "Podalic Version."

Genesee County Medical Society met for noon luncheon at the Hotel Dresden, October 28, 1925. Dr. Carl McClelland, Grace Hospital Staff, Detroit, Mich., spoke on the subject, "Diagnosis of Vincents Angina, Diphtheria and Tonsillitis."

Genesee County Medical Society met for noon luncheon at the Hotel Dresden, November 11, 1925. Dr. Pritchard, Battle Creek Sanatorium, Battle Creek, Mich., spoke on the subject, "Bronchiectasis."

Genesee County Medical Society met for noon luncheon at the Hotel Dresden, November 28, 1925. Dr. Plinn Morse, Harper Hospital, Detroit, Mich., spoke on the subject, "Splenomegaly."

The annual election of officers of the Genesee County Medical Society for the years 1925-1926, was held at the Hotel Dresden, October 28, 1925, with the following results:

President, Dr. Frank Reeder; Vice President, Dr. William H. Marshall; Secretary, Dr. George J. Curry; Treasurer, Dr. George Goering; Medico-Legal Officer, Dr. Charles H. O.Niel; Delegates, Doctors H. Stewart, H. Cook, C. Moll; Alternate Delegates, Doctors M. S. Knapp, John Benson, J. G. R. Manwaring.

Geo. J. Curry, Secretary.

KALAMAZOO CO.

At the Annual Meeting of the Kalamazoo Academy of Medicine held December 15, 1925, the following officers were elected for the ensuing year:

President, Rush McNair; 1st Vice President, O. D. Hudnutt; 2nd Vice President, W. P. Bope; 3rd Vice President, C. A. Youngs; Treasurer, Don C. Rockwell; Librarian, R. J. Hubbell; Censors, L. H. Stewart and W. G. Hoebeke; Delegates to the State Society, L. J. Crum, W. E. Collins and C. E. Boys; Alternates, A. E. West, W. R. Vaughn and H. F. Becker.

W. E. Shackleton, Secretary.

A Clinical Program of the Kalamazoo Academy of Medicine was held Tuesday, December 15th, 1925, at Old Borgess Hospital, 8 a. m. to 1 p. m.

Medical—"Three Cases of Nephritis," Dr. A. S. Youngs; "Diabetes," Dr. L. H. Stewart; "Non-Surgical Causes of Abdominal Pain," Dr. A. W. Crane; "Metastatic Cancer of the Bones," Dr. J. B. Jackson.

Eye, Ear, Nose and Throat—"Operation of 5 cases of Tonsils and Adenoids," Dr. C. B. Fulkerson, (beginning at 8 a. m.); "Review of Mastoid Cases," Dr. D. C. Rockwell.

Pediatrics—Dr. Ward Collins, Dr. D. E. Squires.

Tuberculosis—"Diagnosis," Dr. R. D. Thompson; "Pathology and Treatment," Doctors B. A. Shepard and W. G. Hoebeke.

Obstetrics—"Discussion of Eclampsia," Dr. Frederick Shillito; "Placenta Praevia," Dr. C. L. Bennett.

Surgery—"Diathermy in Cancer of the Cervix," Dr. W. E. Shackelton; "Kidney Tumor," Dr. R. U. Adams; "Abdominal Tumor," Dr. W. C. Huyser; "Appendicitis in Children—Show Cases," Dr. L. J. Crum; "Treatment of Burns—Presentation of Cases," Dr. A. E. Pullon; "Goitre, and Presentation of Case, and Result Plastic for Burns," Dr. C. E. Boys.

This is a tentative program—other numbers may be added. Definite hours and cases will be posted at the Hospital at 8 o'clock, Tuesday morning.

The program of the Annual Meeting and ladies' night, Tuesday, December 15, 1925.

8:00 a. m.—Clinics at Old Borgess Hospital.

The Clinical Program Committee has made arrangements to entertain you the entire morning. Medical, Surgical, Special. Three ring, continuous performance.

1:30 p. m.—Program at the Academy Rooms in the Public Library.

1. Business Meeting and Election of Officers.
2. The President's Address, S. R. Light, Kalamazoo, "The Present Status of Therapy of Ovarian Products."
3. "The Bacteriophage of d'Herelle and Its Relation to Clinical Medicine," by Philip Handley, Prof. Bacteriology, University of Michigan.

6:30 p. m.—Dinner at the Upjohn Company (Informal).

Entrance north side of the new building on Taylor Street.

1. Address of Welcome by Mr. Harold Upjohn.
2. "What Doctors Should Know," by J. W. Dunning, D. D.
3. "The Art of Medicine," by Irving S. Cutter, Dean Northwestern University Medical School.

This is an all day program. Bring your wives and let them do their Christmas shopping while you get some of the newer things in medicine. Make your appointment to meet her before 6:30 p. m. (fast time) for then we are to be guests of the Upjohn company for dinner.

The dinner and evening program has been arranged with definite view of entertaining the ladies. Do not disappoint them.

If it should be necessary to reach you at any of the meetings, the telephone numbers are: Old Burgess Hospital—4530; The Academy Rooms—2619; The Upjohn company—3760.

SECRETARY'S REPORT, NOVEMBER MEETING

The regular monthly meeting of the Kalamazoo Academy of Medicine was held in Bowen Hall, Kalamazoo College, Tuesday, November 17, 1925

at 6 p. m. with an attendance of 63 at the dinner. After the dinner there was a brief address of welcome by Dr. Allan Hoben, President of the College.

The minutes of the October meeting were approved as published in the Bulletin.

Dr. J. Hosea Barnebee was unanimously elected to membership in the Society.

An invitation was extended by the Upjohn company to members and friends of the Academy and their wives to be guests of the company at the annual meeting in December.

A motion made by Dr. Jackson that the invitation be accepted was unanimously carried.

Communications were read from the St. Joseph County Medical Society, South Bend, Ind. and from Helen J. McKain.

Committees appointed by the President introduced the following resolutions which were approved by the Society, therefore be it

RESOLVED, by the Kalamazoo Academy of Medicine, That in the death of Dr. Charles H. McKain, the Academy of Medicine has lost one of its founders, a loyal, faithful member, a learned and able physician and surgeon; a man who in a near half century of professional work, personified the ethics, the efficiency and human service of the ideal practitioner.

Rush McNair,
Herman Ostrander,
David Squires.

A RESOLUTION

WHEREAS, George F. Young of South Haven, who for years has been one of the prominent physicians of the Kalmazoo Academy of Medicine, was removed by death on November 13, 1925, be it

RESOLVED, that as a Society we deeply lament the death of our dear friend and co-worker and tender our heartfelt sympathy to the family who mourn his loss;

That, as a mark of respect, this action be published in the Bulletin, and that copies be furnished the Journals of the Michigan State Medical Society and the American Medical Association;

That the Secretary of our Society be instructed to present a copy of these resolutions to Mrs. George F. Young.

Walter den Bleyker,
F. C. Penoyar,
N. L. Goodrich.

TREASURUER'S REPORT FOR 1925

Receipts		
Cash on hand Dec. 1, 1924		$ 457.75
1925 Dues		1,913.00
Total Receipts		2,370.75
Disbursements		
State Society Dues	$1,155.00	
Guests	102 30	
Bulletins	148 50	
Postage and Stationery	157.89	
Telephone and Telegrams	81.91	
Light	6.98	
Flowers	15.00	
Insurance	7.20	
Stenographer	32 50	
Auditing for 1924	12.00	
Miscellaneous	96.20	
Cash on hand, Dec. 1, 1925	$ 555.27	$2,370.75

REPORT OF THE EXECUTIVE COMMITTEE

The Executive Committee has held several meetings during the year with reference to the conduct of routine affairs of the Academy.

The Committee also met with representatives of other societies of our Councilor district to hear Mr. Harvey George Smith, the executive Secretary of the State Society, present the plan for a minimum program for county medical societies, and this matter has been under discussion by the Committee. It is our feeling that practically all of the features of the suggested minimum program are being carried out by the Kalamazoo Academy of Medicine. Those special features of the minimum program which have not as yet been put into active operation in our Society will be put into effect as soon as practical methods can be found.

The matter of providing equipment for serving meals in the Academy rooms and such changes as may be necessary to make these feasible was referred to the Executive Committee with power to act. It is estimated that the total expense of doing this will be approximately $1,000.00, though it has been impossible to arrive at the exact figures at this time. There is a possibility that the expense of this to the Academy can be much reduced. It would be impossible to complete this work during the present fiscal year and therefore it must be turned over to the new administration. It is the sense of the present Executive Committee that the proposal is good and should be carried out.

S. R. Light, President.

PROGRAM COMMITTEE REPORT

Your present program committee did not make any radical changes in the established customs excepting that during the first part of the year dinners were served in the Academy Rooms, and immediately following these dinners we had speakers who were eminent in their various professions, address the Academy on subjects related to medicine.

In this capacity we were honored by Dr. Allan Hoben, President of Kalamazoo College; Lemuel F. Smith, Professor of Chemistry of Kalamazoo College; Professor George Sprau, Professor of English at the Western State Normal School, and Dr. Smith Burnham, Professor of History at Western State Normal.

The scientific program has been filled largely by men from other cities with members of the Academy taking active part in the discussion of these papers. The subpects presented and the essayists are as follows:

Case Reports, "Septic Arthritis Hip," Dr. J. B. Jackson; "Nasal Sinus Diseases in General Practice," Dr. Charles B. Younger of Chicago; "Lung Infection with Special Reference to Lung Abscesses and Gangrene," (illustrated by lantern slides), Dr. David J. Davis, Professor of Pathology, University of Illinois; "Neurological Diagnosis," (illustrated by moving pictures), Dr. Lewis J. Pollock, Professor of Neurology, Northwestern University; "Some Problems in Neurologic Surgery," Dr. Loyal E. Davis, Professor of Neuro-Surgery, Northwestern University; "Microbe Respiration, Particularly as to the Tubercle Bacillus" (illustrated by lantern slides), Dr. Frederick E. Novy, Professor of Bacteriology, University of Michigan "Cardiac Arrhythmia, Their Differentiation and Prognostic Significance," Dr. S. R. Slaymaker, Professor of Medicine, University of Chicago; "Pulmonary Symptoms and Signs of Thoracic Aneurysm," Dr. Wm. Marshall, Flint, Michigan; "Abdominal Tuberculosis," Dr. Lafon Jones, Flint, Michigan; "Discussion of Sanocrysin." Dr. Douglas F. Bruce Northville, Michigan; "Tuberculosis of the Kidney," Dr. James E. Davis, Detroit,

Michigan; "Thoracic Surgery," Dr. Frederick Coller, Assistant Professor of Surgery, Ann Arbor, Michigan; "Radiation Therapy," Dr. Wm. A. Evans, Detroit; "Sterility and Some of Its Problems," Dr. W. A. Coventry, of Duluth; "Recent Experiences in European Clinics," "Medical Aspect," Dr. L. H. Stewart of Kalamazoo, "Surgical Aspect," Dr. J. H. VanNess of Allegan; "The Method of Action of Some So-Called Specific Drugs," Dr. Joseph L. Miller, Rush Medical College; "Skin Grafting," Dr. Ferris Smith of Grand Rapids.

Dr. Wm. E. Praeger, "Extinct Species of Men," (illustrated); "Recent Evidence of the Constitution of Matter," Dr. J. W. Hornbeck, Professor of Physics at Kalamazoo College.

All of the meetings have been held at the Academy excepting the March and November meetings. The March meeting was held at the State Hospital, a neurological clinic being conducted in the afternoon by Dr. David J. Davis and Dr. Lewis J. Pollock of Chicago. Dinner was served at the Hospital followed by scientific papers by these two doctors.

The November meeting, through the invitation of the faculty of Kalamazoo College was held in Bowen Hall, dinner being served at 6:30 and a scientific program immediately following. The May meeting was a joint meeting of the Michigan State Trudeau Society with the Academy.

G. F. Inch.

REPORT OF THE SOCIAL FUNCTION COMMITTEE

A great deal of interest has been shown in the social and fraternal side of the Academy's activities during the past year, and it is the opinion of the committee that this phase has proven very beneficial to the welfare of the membership in increasing a feeling of good fellowship and friendliness and in securing a better attendance at the meetings.

It has been found that the membership almost unanimously favor the policy of having dinners precede the scientific program, and to hold these dinners in the Academy Rooms. This was the suggestion of our President at the beginning of the year and this policy has been followed out when possible. The Committee has had the best co-operation of the officers and members and thanks is due them. Especially thanks is due the Upjohn company for the loan of dishes, silverware, table linen, etc. Also to Harry E. Davisson of the Blue Bird Cafe for services rendered.

The lack of necessary equipment and conveniences in the Assembly Rooms has been a serious handicap, and to overcome this a movement is now under way to install a steam table, the necessary plumbing and to secure the needed paraphernalia to make it possible to have dinners so that they can be served in the Academy Rooms as conveniently and efficiently as elsewhere.

Many of these dinners have been followed by inspiring speakers among the city's influential men, from the College and Normal on subjects of general interest rather than purely pertaining to medicine. This seemed to be a happy introduction to the scientific program which followed.

A most enjoyable program was recently given by members of the faculty of Kalamazoo College the program and dinner being held in the College dining hall. Sixty-three were at the tables and listened to the instructive program. Every one present feels grateful to the College for the magnificent entertainment presented.

It has been the aim to stimulate the feeling of good fellowship among the members and we feel that with the added improvements now under way the attendance and interest will be materially increased.

Committee,

Sherman Gregg,
Arthur E. West,
D. E. Squires.

HILLSDALE CO.

The joint meeting of the County Medical Societies of Branch and Hillsdale Counties and the Dentists of the same counties was held in K. P. Hall, Hillsdale, on Friday, December 4, at 6:30 p. m.

After a splendid dinner served by the Pythian leaders, and the reading of the minutes, the Vice President, Dr. H. C. Miller, introduced the speaker of the evening, Dr. U. G. Rickert, M. A., D. D. S., Professor of Hygeine and Physiological Chemistry Dental College of the University of Michigan, who addressed the meeting on "Some Infections of Interest in Medicine and Dentistry."

Dr. Rickert discussed as fully as possible the immense importance of diseases of the teeth and oral cavity in their effects upon the general system. He alluded to pyorrhea, dead pulps and dental caries as among the most dangerous forms of disease in their influence in establishing new foci of disease in distant organs and tissues of the body. He pointed out that even vital pulps if inflamed may be the focal point of a secondary infection.

While discussing the salient points of this important group of diseases he did not fail to admit and deplore the inadequacy of our present knowledge of this vast subject and urged Dentists and Physicians to work together to throw light into the dark places therein. Dr. Rickert's address was most scientific and scholarly and was listened to with the closest attention by all present.

Discussion followed by Doctors Sawyer, McLain, Wade and others.

In closing, Dr. Rickert made an earnest plea for a closer team work between the Professions of Dentistry and Medicine.

At the close of the meeting, Dr. Rickert was given a rising vote of thanks for his valuable and illuminating address.

It is most unfortunate that the bad weather prevented so many from being present.

Adjourned.

D. W. Fenton, Secretary-Treasurer.

MUSKEGON CO.

The annual meeting of the Muskegon County Medical Society was held at the Occidental Hotel, Friday evening, December 11th, 1925. After a good dinner the members repaired to a meeting room, where the meeting was called to order by the President, Dr. R. I. Busard. The regular order of business was followed. Among other business was considered the Tulsa plan of advertising, and it was decided to carry ads. in 26 issues of the Muskegon Daily Chronicle.

The minimum schedule as suggested by the Secretary of the State Society, was adopted and left to the new officers to carry out.

Following the completion of business, officers for the next year were elected as follows:

President, Dr. Eugene S. Thornton; Vice President, Dr. Charles B. Fleishman; Secretary-Treasurer, Dr. Pitt S. Wilson; Medico-Legal Advisor, George L. LeFevre; Delegate to State Society, Dr. Frank W. Garber, Sr.; Alternate, Dr. E. L. Kniskern.

P. S. Wilson, Secretary.

INGHAM CO.

Annual meeting for the year 1925 at the Hotel Downey, Friday, December 4, 1925 at 4 p. m. with 35 men present.

The meeting was called to order by the President, Dr. Wright.

The following Committees reported:

Executive—No report.

Program—Dr. Rockwell as Chairman, gave a short resume of the year's work.

Medico-Legal—Dr. Bartholomew, as Chairman, gave a short report on certain communications with the State Board of Medical Registration.

Legislative—Dr. Davey, as Chairman, reported very favorable progress.

Public Health—No report.

Welfare—No report.

Ethics—No report.

Advisory—No report.

Library—Dr. McIntyre, as Chairman, reported on the new volumes present in the library and also that the librarian had reported that only one member of the County Society had used the library during the year.

Entertainment—Dr. Haze, as Chairman, gave a brief resume of the social activities of the Society during the year.

Publicity—Dr. McIntyre, as Chairman, reported that the Committee had decided on no newspaper publicity for the present.

All Committee reports were accepted.

A motion was made by Dr. McIntyre that proper resolutions be drawn up by the Society, petitioning the State Society to go on record as not being in favor of the degree of D.P.H being given anyone except as a post-graduate degree to one holding a medical degree. Supported by Dr. Haze. Carried.

Committee for this resolution—McIntyre, Chairman; Crissey, Osborn.

The report of the Secretary-Treasurer for the year 1925 was given and accepted. The report as follows:

ANNUAL REPORT FOR THE YEAR 1925 OF THE SECRETARY-TREASURER OF THE INGHAM COUNTY MEDICAL SOCIETY

At the present date there are 96 members in good standing in the Ingham County Medical Society, not including the life member, Dr. Anna Ballard. All but ten of these members are residents of Lansing or East Lansing. There is one in Charlotte, one in Holt, four in Mason, one in Williamston, one in Fowlerville, one in Grand Ledge and one in Daytona, Florida.

No deaths occurred among the members in the year 1925.

There were two men dropped from the roll during 1925 for non-payment of dues.

There were four men elected to membership during the year, and one transferred from Washtenaw County to this Society.

There were five Scientific Meetings held during the year with an average attendance of 41.

There were six noon luncheons held with an average attendance of 43. The average attendance for all meetings was 42.

On April 24, 1925, the largest Scientific Meeting in the history of the County Society was held Dr. George W. Crile was the speaker of the occasion and 200 men were present, representing nine counties.

On February 19, 1925, the District Post-Graduate Conference was held in Jackson with 40 men from this county attending.

Important business transacted by the Society during the year was as follows:

An active part was taken by the members in defeating the Chiropractic Legislation.

Refusal to subscribe to the Gorgas Memorial Fund until more definite information could be obtained regarding the activities of this organization.

Co-operation of the Society with the American Red Cross Organization in Disaster Relief Work.

Invitation to the State Society to meet in Lansing in 1926.

Refusal to accept the A.M.A. standard automobile insignia as the standard for this Society.

Acceptance of the State Society's minimum program outline with a few amendments.

Endorsement by the Society of the principles of the Lansing Welfare Fund.

FINANCIAL REPORT

Dues collected from 92 members.

Delinquent in payment of 1925 dues, 4.

State Society assessment paid for 92 members.

* * *

A motion was made by Dr. Milton Shaw that the Secretary of our Society extend an invitation to the State Society to hold their meeting in Lansing in 1926, and all previous actions on this question be rescinded.

Supported by Dr. Weinburgh. Carried.

ELECTION OF OFFICERS FOR 1926

A motion was made by Dr. McIntyre that the Secretary be instructed to cast a unanimous ballot for Dr. Fred L. Seger for President. Supported. Carried.

A motion was made by Dr. Haze that the Secretary be instructed to cast a unanimous ballot for Dr. Harry Bartholomew for Vice President. Supported. Carried.

Nominations for Secretary-Treasurer, Dr. C. F. DeVries, nominated by Dr. French.

A motion was made by Dr. Christian that the nominations be closed and the Secretary be instructed to cast a unanimous ballot for Dr. DeVries for Secretary-Treasurer. Supported. Carried.

Nominations for Delegates to the State Meeting. Dr. Davy and Dr. Osborn.

A motion was made by Dr. Weinburgh that the nominations be closed and the Secretary be instructed to cast a unanimous ballot for Doctors Davey and Osborn as delegates. Supported. Carried.

Nominations for Alternate Delegates—Dr. Wight and Dr. Bruegal.

A motion was made by Dr. Holm that the nominations be closed and the Secretary be instructed to cast a unanimous ballot for Doctors Wight and Bruegal as Alternate Delegates. Supported. Carried.

Dr. M. L. Holm was unanimously elected Medico-Legal member.

Adjournment.

Horace L. French, Secretary.

Below is the Treasurer's Report for the year 1925 as submitted to me by Dr. French. Due to the delinquency of some members he was unable to make a complete report at the annual meeting and I am taking this means of notifying the members individually. The expenses of the annual meeting must be subtracted from the balance but we will still have a fair balance on hand.

ANNUAL FINANCIAL REPORT FOR YEAR 1925, A. D.

December 5, 1925

Receipts

Balance received from Dr. Wershow..... $ 273.44

Annual Dues	1,810.00
Automobile Insignia	5.00
Balance from Crile Banquet	14.00
Picnic Assessment	29.00
From Dr. Drolette (guests at banquet)	4.00
Total	$2,135.44

Disbursements

Dues to State Society	$ 915.00
Administrative Expense	193.62
Annual Banquet, 1924	228.85
Printing	104.19
Annual Picnic	47.20
Flowers	23.00
Refund of dues to Dr. Murphy	10.00
Total	$1,521.86
Total Receipts	$2,135.44
Total Disbursements	1,521.86
Balance on Hand	613.58

Horace L. French,
Secretary-Treasurer, Year 1925.

Let me urge each member to pay his dues promptly so that the work of the Society may be facilitated.

Sincerely,
C. F. DeVries, Secretary.

ALPENA COUNTY

The regular meeting of the Alpena Medical Society was held Thursday, November 19, at the new Alpena House. The physicians each brought a professional friend to hear the address of Charles Doyle of Detroit, "How and What to Eat for Efficiency, and Why." The speaker advocated a restricted diet, consisting mainly of fruits, nuts, cereals and vegetables. The ministers, lawyers and other friends present entered vigorously into the discussion, and each took home something of value from the discussion.

Dr. W. A. Secrist, a greatly esteemed medical practitioner of Alpena for 38 years, died November 19, at his home in Alpena.

The Regular meeting of the Alpena Medical Society was held at Racetts December 17th. The following physicians partook of the bounteous dinner: Bell, Cameron, Foley, Jackson, Newton, Bertram, Sahs, O'Donnell, Williams, Purdy, McKimon, and Lister. Doctors Purdy, Lister and Miller were the hosts.

President Bell reported as follows for the years' work of 1925.

Number of scientific meetings, 12. Average attendance, 17. One picnic with wives. Two meetings addressed by laymen. Participation of Medical Society in Cameron Day celebration, in which fifteen thousand paid their respects to Dr. Cameron on his completion of 40 years of active practice. Six public meetings addressed by members of the Society with a total hearing of 15,000. One ball game with clergy. Participation of Medical Society in public vaccinations and preventive measures.

The following officers were elected for the year 1926: President, S. T. Bell; Vice President, F. J. O'Donnell; Secretary-Treasurer, C. M. Williams; Delegate, F. J. O'Donnell.

The minimum program of activities was adopted and a committee consisting of the President, Secretary, with Doctors Foley, Newton and Cameron was appointed to arrange to carry it into execution. Dr. John Purdy gave the paper of the meeting on, "Medical Dollars and Sense." Nearly all present participated in a lively discussion of this interesting subject.

You will note by the enclosed report of the Annual Meeting, our adoption of the minimum program. This is a great stride for all societies to aim towards.

I note in the recent report of the Joint Committee, no credit is given Alpena for public addressed meetings this past year. The following public addresses were given under supervision of our Medical Society:

Alpena—Cameron Day. Dr. B. Kennedy speaker	15,000
Alpena—Post-Graduate Medical Conference. Dr. Hugh Cabot speaker	600
Alpena—Parent Teachers' Association. Dr. F. J. O'Donnell speaker	50
Alpena—High School. Dr. F. J. O'Donnell speaker	400
Alpena—Lincoln School. Dr. C. M. Williams speaker	200
Alpena—Churchill School. Dr. C. M. Williams speaker	150
Hillman—Parent Teachers Association. Dr. C. M. Williams speaker	150
Mellusburgh—Parent Teachers Association. Dr. C. M. Williams speaker	150

With best wishes for a Happy New Year, I am
C. M. Williams, Secretary.

CALHOUN COUNTY

The 49th Annual meeting of the Calhoun County Medical Society was called to order in the Bridge Room of the Post Tavern, Battle Creek, by the president at 4:15 P. M., December 1st, 1925. The minutes of the previous meeting, upon motion by Dr. Hafford and seconded by Dr. Kolvoord, were approved as printed in the Bulletin.

The resignation of Dr. A. J. Abbott was read by the Secretary. Moved by Dr. Gorsline, a committee was appointed to see Dr. Abbott and ask him to reconsider his resignation and give a report at the next regular meeting. Seconded and carried. Dr. Hafford and Dr. Herzer appointed by the chair to serve as a committee.

A letter was read by the president from our councillor, Dr. R. C. Stone, urging all members to set aside December 10th for the Post Graduate Conference to be held in Battle Creek. The above date was changed to the 16th, following word from Dr. Stone and the Executive Secretary in Grand Rapids.

Bills were presented as follows:

Printing and mailing special cards (Dr. Brainard)	$ 7.31
Printing Bulletin	7.75
Mailing and Postage for Bulletin	1.30
Total	$16.36

Applications for membership of Dr. Ryan and Dr. Oaks, after approval by the Board of Censors, were ready for action. Moved the Rules be suspended and the Secretary cast vote for these candidates for membership. Twenty-seven votes wese cast and Dr. Ryan and Oaks declared elected.

The Secretary-Treasurers' report was printed in the Bulletin. Moved by the President the report be accepted. Carried.

Dr. Gorsline reported for the Board of Directors, stating all bills had been approved and paid. All applicants had been examined and found worthy for admission into the Society.

Dr. Gorsline reported as Delegate to the State Society. The general meeting of the whole Society instead of the usual sectional meetings, worked out very satisfactory and will probably be followed in the future.

The District Conventions, which are being held in all parts of the state, are proving very successful and also fostering a good fellowship amongst the members of the various Calhoun Societies. The Board of Councillors are putting a lot of real earnest work into the State Medical Society. The

raising of the dues met with very little, if any, opposition. It is conceded that Michigan has the most live state organization in America.

The following officers were elected: Dr. Rosenfeld and Heald were appointed as tellers. Dr. Gorsline moved the Vice President be chosen for President for the coming year, suggesting it be a unanimous choice. Supported by Dr. Godfrey. Moved and supported the rules be suspended and the tellers instructed to cast a unanimous vote for Dr. J. A. Elliott. Thirty-one ballots cast and Dr. Elliott was declared elected as President.

Dr. Martin was nominated for Vice President by Dr. Knapp and supported by Dr. Gallagher. Nominations closed. Moved and supported the rules be suspended and the Secretary instructed to cast the vote of the Society for Dr. Martin for Vice President. Thirty-one ballots cast and Dr. Martin was declared elected.

Dr. L. E. Verity was nominated by Dr. Winslow to succeed himself as Secretary-Treasurer. Moved and supported the rules be suspended and the chair cast the ballot in favor of Dr. Verity. Thirty-one votes were cast and Dr. Verity declared elected.

Dr. Gorsline and Dr. Hafford were re-elected as delgeates to the Michigan State Society. Dr. Kingsley and Dr. Godfrey elected as alternate delegates. It was moved and supported in each case the minutes be suspended and a unanimous vote of the Society be cast in their favor by the Secretary. Thirty-two votes cast.

In the absence of Dr. Haughey, the Chairman of the committee investigating the fees, etc., in the cases of the poor, Dr. Kingsley made the report that considerable progress has been made and suggested that the committee be continued and give a later report.

Dr. A. F. Kingsley, our retiring President, gave a short address. The year's success was due to the faithful service of the officers and committees. Ten regular meetings were held. The following recommendation was made: The By-Laws have been allowed to stand from year to year so that no new copies, with added amendments, etc., are available. The President recommends a committee be appointed by the new administration to go into the above matter and bring the By-Laws up to date. Membership remains unchanged.

Dr. Elliott took the President's chair, vacated by Dr. Kingsley.

Meeting adjourned at 5:30 p. m. Attendance, 32.

L. E. Verity, Secretary.

The 1926 dues are now payable. Please make it as easy as possible for the Secretary-Treasurer by paying up your dues without delay.

The 24th Post-Graduate Conference of the Michigan State Medical Society was held in Battle Creek, Wednesday, December 16th. The attendance was excellent, showing that the members are appreciative of the effort on the part of the councillors and the State Society to bring before the profession the latest methods available in the diagnosis and treatment of disease. The program was practical and those who did not attend will never know until they attend the next one, just how much they missed. Attendance at dinner, 80. Attendance at the meeting, 110.

Following the Annual banquet, the Calhoun County Medical Society was honored by an exceptionally brilliant address by Mr. Burnett Hamilton. The following is his tribute to the Medical Profession.

"Your profession yields to none in excellence. Enlisted for life, dedicated to human welfare, working in all weather and all hours, paid and unpaid, thanked and unthanked, praised, blamed; giving, giving, giving life for life; smiling through heartbreak, fighting on and on; clinging to ideals —living them; growing in mind and spirit, even in age; standing on the firing line; living for humanity; dying for humanity; if any of God's children ever were entitled to rest in the shade of palms amid music, these heroic defenders of the lives and happiness of mankind surely are."

TRI-COUNTY

I have just learned that you have not received a report of our annual meeting with election of officers. The meeting was held at Mercy Hospital, Cadillac, Michigan, December 15, 1925, at which time the following officers were elected:

Dr. Smith, of Cadillac, President; Dr. Neihardt, of South Boardman, Vice President; Dr. Kimball, of Manton, Second Vice President; Dr. Moore, of Cadillac, Secretary-Treasurer.

It was moved and supported that the president appoint members of the various committees. Dr. Moore, of Cadillac, was elected delegate to the State Convention, and Dr. Smith, of Cadillac, Alternate. It was also moved and supported that the next meeting be held at Mercy Hospital with a 6 o'clock dinner on December 15th.

Inclosed you will find a complete report of this meeting.

Members present: Doctors Smith, Gruber, Ricker, Carrow, G. D. Miller and Moore, of Cadillac; Doctors Kimball and Lommon, of Manton, and Dr. Niehardt, of South Boardman.

Members absent: Dr. Babcock, Kalkaska; Dr. Brooks, Tustin; Dr. Fairbanks, Luther; Dr. J. Doudna, Lake City; Dr. Bronson, Kingsley; Dr. McManus, Mesick; Dr. Mills, Boon; Dr. Purdy, Buckley.

After an excellent dinner, served by the Sisters of Mercy Hospital, a short business session was held in the dining room. The principal item of business was the adoption of the Minimum Program as recommended by the State Medical Society, and the Secretary was authorized to order physical examination blanks and all other necessary supplies to carry out said program. Can you furnish these blanks?

Adjourned to reception room adjoining the X-ray Department for open meeting with the sisters.

Comparative hospital report for October and November, 1924 and 1925:

October, 1924.	
Patients admitted	39
Patients discharged	37
Deaths	2
Laboratory and X-ray Department	27
October, 1925.	
Patients admitted	67
Patients discharged	37
Deaths	6
Laboratory and X-ray Department	79
November, 1924	
Patients admitted	48
Patients discharged	41
Deaths	4
Laboratory and X-ray Department	28
November, 1925	
Patients admitted	55
Patients discharged	41
Deaths	3
Laboratory and X-ray Department	75

There was also a discussion of the causes of the deaths listed, and the program was then taken up as announced.

PRESENTATION OF CASES

Dr. Miller presented a male child six years of age with what was diagnosed as a large venous aneurysum on the left side of the neck. Child retired healthy and feeling well three weeks ago. The next morning the large mass on the left side was visible—no pain, no temperature, no ill feeling or loss of appetite. Child apparently well and healthy. Mass perhaps a trifle smaller than when first seen.

Case No 2—Dr. Gruber reported on a case of goitre operated by Dr. Brooks, of Detroit, ten years ago, in which all of goitre was removed. Lady improved for a few years, but the last three or four years, became anemic, rapid pulse, nervous, gland increased in size nearly double. Reported back to Dr. Brooks, reoperated and reported as low grade carcinoma.

Case No. 3—Dr. Gruber exhibited a male child four years of age, who entered hospital second week of present illness. Child continued to cry and was very restless with severe bronchial cough, distended abdomen, lips and tongue very dry, constipated. Continued to sit up in bed with knees flexed, a varied temperature from 100 to 104, pulse from 120 to 160, respiration from 30 to 50. The twelfth day after entering hospital, doctor gave the child a stick of gum after which the child became quiet, has remained quiet and has been chewing gum ever since. Child on the road to recovery, entered hospital on December 4th.

LABORATORY REPORT

Blood culture and feces both positive typhoid. History of another child in the same family sick five weeks in August and September of present year, which in all probability was typhoid.

Case No. 4—Dr. Smith gave a case history from a chart of a male child in the hospital, five years old, and of a rather different picture of typhoid.

Dr. Neihardt gave a short synopsis of a few rare cases. In his experience of treating four hundred cases of typhoid, only one case of a pregnant woman. Dr. Gruber gave a short history of a girl thirteen or fourteen years of age, at the end of the third week developed abscesses on arm and shoulder and hips, then abscesses over entire body, all of which healed very rapidly upon being opened and evacuated. Patient had a low temperature and a rapid pulse all through illness.

Dr. Gruber gave history of having had three typhoid pregnancies; also another case of typhoid with abscess middle of ear, fourth week.

Case No. 5—Dr. Ricker gave a short history of a more typical case of typhoid.

HOT SHOTS IN DISCUSSION OF TYPHOID

What is the cause of death? What is the cause of perforation? What is typhoid?

Dr. Gruber used light diet for sixteen years in private practice, changed to general diet while in late war service—never to go back to light diet. Feed anything liberal from start to finish, if case started on general diet. Theory: Keep patient well nourished. Cause of perforation and death, low vitality and emaciation.

Dr. Smith to Dr. Gruber: "Would you give green corn to your typhoids?"

Dr. Gruber to Dr. Smith: "Yes, if I started them on it."

Dr. Smith to Dr. Gruber: "Don't you ever give it to me."

Dr. Ricker exhibited some X-ray plates on stomach and bowel cases with discussion on same and diverticulum.

Secretary, Dr. Moore, requested the doctors to send in their preferences for papers, lectures, or talks for future plan of carrying out the Minimum Program as adopted by the Society.

Moved and carried that the next regular meeting be held at Mercy Hospital with a 6 o'clock dinner on the last Tuesday in January. Program to be announced later.

Meeting adjourned. Sincerely yours,
S. C. Moore, Secretary.

ST. CLAIR COUNTY

The Annual Meeting of this Society was held on December 17, 1925, at the Hotel Harrington. Eighteen members of the Society were in attendance.

Following the usual dinner and social hour the meeting was called to order by President T. H. Cooper.

Miss Bauch, of the Michigan Anti-Tuberculosis Society, addressed the members relative to having a clinic held in Port Huron some time during January. Tentative arrangements were made to hold same and the Society pledged their co-operation.

The Society accepted the invitation of the Seventh District Dental Society to meet with them on January 4 to hear an address by Mr. G. H. Harter, President of the Defensive Diet League of America.

Dr. Jacob H. Burley and Dr. Annie E. Reynolds, both of Port Huron, were then elected to membership in the Society.

Dr. C. C. Clancy, Past President of the State Medical Society, made a short address relative to better attedance at the Society meetings during the coming year, emphasizing the fact that while out of town speakers brought out better attendance, that there were many able members of the Society who could present papers of benefit to their fellow members and suggested that during the coming year some papers be prepared and read by local members.

Officers for the ensuing year were then elected as follows: President, Dr. J. J. Moffett; Vice President, Dr. W. W. Ryerson; Secretary-Treasurer, Dr. G. M. Kesl; Delegate to State Society, Dr. C. C. Clancy; Alternate Delegate to State Society, Dr. A. L. Callery; Member of Board of Trustees of this Society, Dr. R. K. Wheeler, for three years.

Following the election of officers the Society went into executive session for one hour to discuss a committee report upon an important subject.

The Society adjourned at 11 p. m.

George M. Kesl, Secretary.

HOUGHTON COUNTY

The Houghton County Medical Society held its regular monthly meeting at the Miscowaubik Club, Tuesday, December 1, at 8:30 p. m., with 12 members present. After the reading of the minutes and allowing of bills, Dr. Alfred LaBine presented a paper on "Cystoscopic and Kidney Work." Dr. Becker presented some interesting cases, and several other interesting cases were presented. A very free discussion was indulged in by those present, and the Society then adjourned to lunch.

On November third the St. Joseph Hospital Staff entertained the members of the Houghton County Medical Society at a dinner at the Douglas House. This social event took the place of our regular monthly medical meeting. A number of fine speeches were made by Doctors Manthei, Becker and LaBine. A very enjovable evening was spent and everyone voted the Staff a cordial vote of thanks for the wonderful dinner.

We very much regret to report at this time the death of one of our members, Dr. C. E. Rowe,

of Hubbell, Mich., active in the Medical Society work and he will be greatly missed.

We are very fortunate in having secured Dr. Kahn, of the State Board of Health to talk to us at our January meeting.

Dr. A. F. Fischer was elected to the position of dean of St. Joseph Hospital for the ensuing year; Dr. A. D. Aldrich vice-dean, and Dr. M. D. Roberts secretary and treasurer.

Regarding the minimum program, this matter will be taken up at our next regular meeting.

I have been away for the past six weeks and this accounts for the fact that I did not report our activities. Yours very truly,

G. C. Stewart, Secretary.

IONIA-MONTCALM COUNTY

The annual meeting of the Ionia Montcalm Medical Society was held Thursday evening, December 10th, 1925, at the Hotel Belding, Belding, Mich.

An excellent dinner was served to 18 members which was enjoyed by all. After the dinner, the following program was presented:

"Etiology and Treatment of Pyelitis," was the subject presented by Dr. Wm. J. Butler, Grand Rapids, Mich.

Dr. Butler presented his subject in a most interesting manner, giving the essential points in the diagnosis and treatment. This talk was well received by all present.

The second talk of the evening was given by Dr. Thos. A. Gordon, of Grand Rapids, Mich., "Infant Feeding," being the subject.

Dr. Gordon presented this subject in his usual masterly manner. It was splendid, practical and concise. The members entered into a free discussion of the subject and asked many questions of the speaker.

A rising vote of thanks was extended both Dr. Butler and Dr. Gordon, for the instructive program rendered.

Following the presentation of the program the business meeting was called to order by President Jos. F. Pinkham. The result of the election of officers for 1926 was as follows:

President, Dr. E. R. Swift, Lakeview, Mich; Vice President, Dr. Raymond R. Whitten, Ionia, Mich.; Secretary-Treasurer, Dr. Herbert H. Maynard, Ionia, Mich.; Delegate State Society, Dr. F. A. Johnson, Greenville, Mich.; Alternate, Dr. I. S. Lillie, Lakeview, Mich.

A motion was made by Dr. Kitson to adopt the minimum program. The motion was seconded by Dr. W. H. Lester. The motion carried.

A motion was made and carried to continue the monthly meetings through the winter months.

F. A. Johnson, Secretary.

SHIAWASSEE CO.

The annual election of officers of the Shiawasse County Medical Society was held at Memorial Hospital in Owosso, Tuesday evening, December 1, at a point meeting with the staff of the hospital.

At 6 o'clock dinner was served by the hospital management. Officers were elected as follows:

President—Dr. C. McCormick, Owosso.
Vice President—Dr. C. A. Crane, Corunna.
Secretary-Treasurer—Dr. W E. Ward, Owosso.
Delegate—Dr. J. J. Haviland, Owosso.
Alternate—Dr. W. E. Ward, Owosso.
Medico-Legal Representative—Dr. A. M. Hume, Owosso.

Board of Directors—Dr. W. T. Parker, Owosso; Dr. L. M. Cudworth, Perry, and Dr. G. T. Soule, Henderson. W. E. Ward, Secretary-Treasurer.

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

A TEXT BOOK OF PSYCHOLOGY FOR NURSES—By Maude B. Muse, R. N., A. M., Instructor in Nursing Education at Teachers College, Columbia University, New York City. 12 mo. of 351 pp., illustrated. Cloth, $2.50 net. W. B. Saunders Company, Phila.

In a simple, yet connected way, the author has presented the subject in a manner that will enable the nurse to apply the principles of psychology in her daily work. It is an excellent manual for training schools.

MASSAGE AND THERAPEUTIC EXERCISE—By Mary McMillan, Supervisor of Aids in Physiotherapy, Medical Corps, U. S. A., 1919-2. Second edition, reset. 12 mo. of 331 pp., 17 illustrations. Cloth, $2.50 net. W. B. Saunders Company, Philadelphia.

Received and commended to beginners.

A TEXTBOOK OF PHYSIOLOGY—By Wm. D. Zoethout, Ph.D. Second edition. Price $4.50. C. V. Mosby Co,, St. Louis, Mo.

An excellent text for students in normal and physical education schools. It imparts facts that should be known by all educators. It should admirably serve as a splendid work to recommend to laymen.

THE THERAPY OF PUERPERAL FEVER—By Robert Koehler, M. D. American edition of Hugo Ehrenfest, M. D., Washington University. Twenty-seven illustrations. Price $4.00. C. V. Mosby Co., St. Louis, Mo.

An extremely rational discussion of the subject and a practical summarization of therapeutic measures, based on etiology and pathology. Well illustrated.

THE MEDICAL CLINICS OF NORTH AMERICA—(Issued serially, one number every other month. Volume IX, No. III., New York number, November, 1925. Octavo of 312 pp., 72 illustrations. Per clinic year, (July 1925 to May, 1926). Paper, $12; cloth, $16 net. W. B. Saunders Company, Philadelphia, Pa.

CHEMICAL PATHOLOGY—Being a discussion of General Pathology from the standpoint of the Chemical processes involved. By H. Gideon Wells, Ph.D., M.D., Professor of Pathology in the University of Chicago, and in Rush Medical College, Chicago. Fifth edition, revised and reset. Octavo of 790 pages. Cloth, $8.50 net. W. B. Saunders Company, Philadelphia, Pa.

A very acceptable text imparting a resume of present problems of biology and medicine. It may well be appraised as an authoritative reference text and guide.

THORACIC SURGERY—The Surgical Treatment of Thoracic Disease. By Howard Lilienthal, M. D., Professor of Clinical Surgery at Cornell University Medical School. Two Octavo volumes, 1294 pp., 90 illustrations, 10 in colors. Cloth $20. W. B. Saunders, Phila.

Remarkable progress has been made in thoracic surgery. Certain procedures have become well established. The author's extended experiences warrant for his opinions authoritative recognition. They are imparted in this excellent addition to our reference literature.

APPLIED BIOCHEMISTRY—By Withrow Morse, Ph. D., Professor of Physiological Chemistry and Toxicology, Jefferson Medical College, Philadelphia. Octavo of 958 pages, 257 illustrations. Cloth, $7 net. W. B. Saunders, Philadelphia, Pa.

Biochemistry applied to medicine fully expresses the scope of this text. It is so recommended to our readers who will find a clear discussion of each subject.

INTRAVENOUS THERAPY—Walton F. Dutton, M. D., 2nd revised edition. F, A, Davis Co,. Philadelphia,

A fairly complete discussion of the subject with well directed criticism of the claims of over-enthusiastic intravenous therapists. It enables one to better determine the value of intravenous medication and the technic that is most efficacious.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XXV. GRAND RAYIDS, MICH., FEBRUARY, 1926. No. 2

Original Articles

Addresses Delivered at the Dedication Ceremony University Hospital, Ann Arbor, Nov. 19th, 1925

EDITOR'S NOTE: *We are privileged to publish and so impart to our members the following addresses delivered by invited guests at the dedication of the University Hospital. In this issue we are publishing the addresses delivered on the second evening of the ceremonies. The occasion was an epoch-making one for the University and the medical men of Michigan. As such it is fitting that this permanent record be made in our archives.*

THE UNIVERSITY HOSPITAL

H. A. HAYNES, M. D.
ANN ARBOR, MICH.

The early days of the autumn of this year saw the finishing touches on the new University Hospital.

The building of this has occupied several years—the delays in construction have been due to many causes, the chief of which was the distraction and general upset incident to the Great War.

Important as we deemed this addition to our state institution and much as we regretted the frequent interruptions, no forward looking person had more than passing regret, for the decision that carried the conscience of America into an unsought and unwished for conflict, was so lofty in sentiment as to commend it to all mankind, and it was like the heart of this great state to set aside even the caring of her own sick and needy to rally to the support and help share the greater burden of sorrows of her cousins across the sea.

But here at last this magnificent structure stands, not indeed a pile of architectural splendor, nor a monument in glorification of the subjugation of a people, nor to commemorate any personal triumph, but rather as a testimonial that the great heart of the people of Michigan has accepted not as a high sounding phrase but as a central and abiding philosophy of life the belief that they are their brother's keeper.

The hospital today is a vitally important institution, deeply rooted in the family and civic life of the American people. Originally designed only for the care of the sick, it is becoming more and more a community health center, influencing as no other agency, the well being of the public. The recognition of the importance of adequate hospital service, both in cities and rural communities, is ample and logical reason for present advancement.

The rapid development of the hospital filed within the past few years will undoubtedly continue over a considerable period. The hospital facilities of the country, particularly in outlying regions, must be greatly increased in order to meet the standards of hospital service. The magnitude of the hospital field, expressed in terms of daily population and expenditure, is a surprise even to those closely connected and intimately familiar with hospital service in this country.

Over 1,250,000 people must be housed, fed, and cared for each day involving an expenditure in excess of $3,000,000 each working day or over $1,000,000,000 annually. This year the new construction and equipment program represents an expenditure of over $300,000,000.

There are in service in the United States and its possessions about 8,000 hospitals and sanatoriums. It is interesting to note that as recently as 1873 there were only 149 hospitals in this country. The increase since that time has been 4,661 per cent in the

number, and 2,162 per cent increase in the bed capacity and a population increase of but 174 per cent.

There are in Michigan 273 hospitals and allied institutions representing a bed capacity of 30,551—206 hospitals are for acute service, 22,737 beds or 1—161 of the population. Michigan occupies the 21st place among the states in providing hospital service for its people.

Hospital authorities are practically agreed that in order to meet the demands for hospital service today there should be a maximum ratio of one active bed to every 150 of population, depending, of course, on local conditions. The University Hospital, including both active and con-service, will provide about 1,100 beds or a ratio of 1—3,300 of the population of Michigan.

The hospitals are educational centers with branches all over the country. In these schools more young women are studying the profession of nursing than are enrolled in all our universities and colleges. That these influences are not futile there is abundant evidence. In support of this it is only necessary to mention that largely through the aid of hospital and allied activities the average length of life has been increased twenty-one years during the generation just past, and without a doubt a similar period will be added in the next fifty years.

That the hospital has a double function, keeping well people well, and restoring the sick to health are among the reasons why the hospital idea has been universally accepted by the American people. Restoring the sick to health, while originally the only function of the hospital, is more and more being supplemented by the service of keeping well people well, and all over the country hospitals are taking active leadership in health educational work.

Now what is the function of this great institution? Broadly, it is operated in the service of the people of Michigan. And how does it function? The people of this state and country need doctors and nurses to care for them in their sickness and sorrow. This hospital is so equipped as to afford every opportunity for the adequate training of doctors and nurses in order that we may supply that demand—and not only does it help to train doctors to send out for service in all parts of the country, but it provides for their return from time to time so as to keep them in touch with the more recent advances in medicine and surgery to the end that even the most isolated community and the humblest citizen may have the privilege of the largest and best that science has to offer.

In addition to this it helps care for the sick. Many communities are still without hospital facilties—only about half of the counties of this country are provided with hospitals—many doctors are handicapped by lack of equipment and the facilities necessary to diagnose difficult conditions. To both of these calls we are prepared to give help, and yet with all the wonderful advancement that medical science has made the sad fact remains that the causes of many diseases are still unknown and many still remain incurable. So that it seems fitting that with the opportunities afforded by this great organization we should undertake the development of research—should set aside certain time and equipment for the investigation of those problems the causes of which are still unknown, with the hope and prayer that our children and our children's children may be spared much in the way of sickness and suffering that has come to so many of us.

Should we forget the patient after he has left the hospital? We fail to get full value of this expenditure unless we follow the patient after his discharge, not only for the purpose of conserving his health, increasing his intelligence in health matters, and preventing recurrent illnesses, but also for the purpose of getting and co-relating worth while statistical records on the results of our methods of treatment. It certainly is a distinct advantage to the staff of the hospital to maintain a complete record of the final results of the patients' treatment. Should we not know how the broken down human machine fared after the repair in the hospital and how long it remains repaired?

Follow up methods and periodic examinations of their machinery or products are now an established practice in commercial institutions and manufacturing plants. This is done to forestall unnecessary expense, accidents, and sometimes loss of life. All automobile owners know of the monthly inspections conducted by all the automobile concerns. Why should not we, in a similar manner, conduct periodical examinations of the human machines that are being repaired daily at our plant at such an enormous expense?

The desire to help—the spirit of service has found expression in so many ways that those of us engaged in the practical work have been tremendously heartened. There is scarcely a community the country over that does not have some great hearted people banded together in an attempt to add to the welfare and happiness of hospital patients. In this community the Kings Daughters and many other organizations have been a very great help.

And so, my friends, let us think of this great hospital as a magnificent institution set aside for the service of the sick and suffering, for the advancement of learning and a monument to the intelligence and the heart of the people of Michigan.

THE EDUCATIONAL FUNCTION OF A HOSPITAL

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I speak to the text that no hospital fulfills its highest function unless it stresses the feature of education. A hospital is a place where something more should be done than merely care for the sick. It is a place in which present knowledge should be imparted and new knowledge sought.

That I may not start in with your minds prejudiced against me because you think I am overlooking the patient may I state that the central figure in every hospital is, or should be, the patient. Whatever use is made of the hospital as a means of education it should be self-understood that whenever the sick man enters it he has a right to expect and demand the most skilled treatment its staff can offer. We believe that the best treatment will be in the hospital that clearly recognizes its educational function. But if the patient be utilized for the instruction of nurses, undergraduate or graduate medical students, or in the working out of some scientific problem, there must be assurance that he is not put to unnecessary expense or robbed of his feeling of self-respect, that his life is not endangered or his health impaired thereby. We may use him as "material," to employ the word that unfortunately has become fixed in our medical vernacular, but not as we use a whetstone bridge, a burette, a test-tube, a guinea-pig or a rabbit. We assert that it is our right and duty to experiment with inanimate apparatus, and—when we are humane—with the lower animate bodies, even though the test-tube break or the rabbit die. But a human being is neither a test-tube nor a rabbit. We may study his disease, even experimentally, but we must treat him as a fellowman.

Who are to be educated by the hospital?

1. The Attending Staff—The attending physician or surgeon is appointed because of his knowledge, it is to be hoped also because of his wisdom—many doctors are learned but not wise—because of his experience, his ability as an executive organizer. But unless he is too old he is still a learner. His experience ripens and his judgment matures in the wards, the operating room, or perhaps the deadhouse as he critically studies not occasional cases of disease but studies them by scores or hundreds. The surgeon who has operated on 500 cases of goitre is, other things being equal, better fitted to advise young physicians, medical students and patients themselves as to the advantages, risks and manner of operative treatment. He has been educated by the hospital, he is in turn an educator. And is not the patient a gainer? Though the individual patient may never see the head surgeon, that surgeon's knowledge and experience are the possession by tradition of the entire hospital. They filter through to the lowliest assistant and medical student. What he has learned be it technic, therapy or new ideas as to etiology is a possession of the hospital.

2. The Resident Staff—From the residents the specialists are to be developed. For one, five, ten years these men live in the hospital. The most ordinary man among them must learn something by absorption. But by care in their selection they are to begin with, a superior lot. They study, they observe and assist their seniors and their colleagues. They must teach and by so doing no one knows how inadequate or ill-sorted is his knowledge until he is forced to impart it to students and to answer their searching inquiries. They must investigate and do intensive work along new and special lines. They must shoulder responsibilities. They are becoming experts. To use again an illustration from surgery: These men can easily and readily be taught technic, how to operate. It is much harder for them to learn when to operate, harder still when not to operate. The greatest fault in our present day surgery is not poor technic, though there are many poor technicians. The greatest fault is the lack of knowledge of the causes of disease, the attendant pathologic condition wrought by disease, its natural untreated course, the risks of operation, the possibilities and probabilities of improvement or cure. Some time, it is to be hoped, it will be legally impossible for the surgeon to go out and do a major operation unless he has had this previous long, intensive training in the hospital.

And it would not be difficult to show that in a similar way the treatment of many serious ailments in internal medicine and in the specialties should be entrusted only to those with this preliminary hospital training.

The patient is the beneficiary!

3. The Interne is really a senior student. He is now in the ward in intimate daily contact with the patient. He is putting into practice in the laboratory manner what he

has learned from books, from his theoretical and other courses. He learns how to examine and to manage patients, how to record his findings, to analyze them, to think. He is learning method as well as fact. He learns by his own mistakes and those of others. He may be surprised to find that his professors occasionally make mistakes, sometimes more than occasionally. He learns that diagnosis is not by intuition but by use of gray matter. He sees the importance of a carefully elicited history. He finds out that even instruments of precision are not always precise and laboratory methods are not always infallible. I need not dwell upon the value of an interneship.

The public must be made to realize that if the young graduate does not gain his practical experience in a hospital under the guidance of older heads, and in an atmosphere redolent to traditional medical knowledge handed down from one generation of internes to another, and from one group of attending men to another—and this traditional knowledge is one of the most valuable assets of a hospital—if he does not get his training in this safe-guarded manner before he is a licensed practitioner, he is forced to get it in his private practice on your child or on mine and with no counselng voice of a senior to keep him from sins of omission or commission.

The marvel is that so many men with utter lack of hospital training are able to go out and do so well—i. e., do so little harm. Native shrewdness, earnest endeavor, tact, ability to learn quickly from others and from their own mistakes, enable them to succeed in a wonderful manner. How many sad, even fatal, blunders are made through lack of proper practical training no one can tell—it is best not to tell. Even the celebrated Dr. San Grado wished Gil Blas to go about with him for a few days on his rounds of bleeding and drenching his patients with water before the said Gil Blas was to be permitted to practice as a representative of San Grado.

But I am talking of an internship in a good hospital. In many hospitals, some small, some large, some in the small towns and some in the large cities, the intern does little more than give an anesthetic, dress and take the blame for the pus cases, and occasionally examine the urine or sputum. There are no histories, or none worthy the name, no laboratory tests, no thorough examination of a patient. The intern gains a certain amount of self-confidence, often an unwarranted amount which is largely absorbed from the staff,—though there is seldom any appreciable loss at the source of supply,—he learns not to faint at the sight of blood, learns the dose of a good many drugs, some of which he might well forget, and helearns that an easy, a lazy substitute for thinking is to do an exploratory laparotomy. Such training is superficial, incomplete and in many respects pernicious.

From a good hospital, and it is a pleasure to state that hospitals have been rapidly improving of late, these internes go out well trained to be general practitioners and again the patients and the general public are the gainers.

4. The Medical Student—The real activating force, the catalytic agents in the hospital is the medical student in the ward. He learns, of course. He hears the heart murmur and studies it at leisure. He palpates the distended gall-bladder, sees it at operation or in a fatal case at the autopsy, he learns to do the necessary clinical laboratory work, to record findings, to think and read. But in addition, he puts new life into the ward. Internes brace up and do their work better. They dislike having a green medical student find them in an error. The resident re-examines and looks up the literature so as to be prepared tomorrow for that annoying medical student who today asked the awkward pointed question. The attending physician is very careful about his diagnosis. He doesn't like to have his case of pernicious anemia shown up as a cancer of the stomach and to see the medical students nudge each other as the true condition is revealed. Supervised ward classes for medical students should be in every hospital for the good of the students, who are to be our future doctors, the attending and resident staffs and the patients. "Why", said a trustee of a large hospital in Chicago, "do the poor patients of our religious faith who can get free treatment in our wards go to the other hospital and pay a good rate for a bed?" "Because", answered one of his own staff, "that hospital is connected with a medical school, the patients are shown to students, by whom they are examined and studied thoroughly, they like it, they know they are better treated." In one of our large hospitals where students were not admitted to the wards an attending man was hurrying down the ward to look at the "interesting case," the one he was to show in the large clinic. It was the "interesting cases" only to which he paid much attention. As he went by bed after bed not noticing their occupants an Irish patient remarked to his neighbor. "Well, I suppose I ought to be a hell of a lot better. The professor has just walked by." Had students been in the ward his sarcastic wit would have had to seek other subjects for play.

5. The Nurses—I do not know whether

you consider nursing a trade or a profession or a manifestation of an altruistic emotionalism. I think it is all three. But whatever its origin, in some form or other it has come to stay. I am not discussing the question as to whether our nurses should have a two or three years course or should even be given a longer course and granted a college or university degree. I am not discussing the question of whether many of our schools are turning out too highly trained product, a supernurse, or whether there may not be a place for one less highly trained in a shorter course—an assistant nurse, a high grade practical nurse so to speak. These are all pertinent questions but need not be discussed here. The point I wish to make is that the hosiptal has an opportunity and duty to educate these young women. (May I ask, parenthetically, why not young men, why should women have the monopoly? Are there not certain branches of nursing that could more appropriately and as efficiently be cared for by men if properly trained?) To practice, nurses must have the training. To run a modern hospital we must have their help and co-operation. Of course as is the case with doctors, even nurses have their human failing. There are some poor ones. Sometimes, perhaps, it is the fault of the training. To a graduate nurse I said: "You may stop the digitalis, I fear it is upsetting the stomach of our patient." "Oh," piped up the angel-faced and well intentioned attractive little graduate nurse:— "I stopped that three days ago. I saw it was not helping the patient and besides the poor man didn't like the taste." Well, her powers of observation may have been keener than mine. But there was something wrong about her, she was not well-qualified by nature to be a nurse and she lacked the proper training. She had not been taught to obey and to serve. She was unconsciously acting as commanding officer.

6. Social Service Workers—The connecting link between the patient and the home is the social service worker. She it is who knows the havoc wrought in the family by illness—havoc physical, economic, moral. She knows that the illness means something more than a damage to the heart, the loss of an eye or the partial wrecking of a once keen intellect. It means reduced income, more cramped living quarters, a lower social status, sacrifice of higher schooling for the children, compulsory wage-work for the wife. Nay, it may mean more than this, may mean a face to face encounter with starvation, the public charity agency, the wreck of all hopes for a life of comfort or even decency, the collapse of the family morale. It is her duty so far as possible to see that preventable injustice be not done by hospital or physician to one who is suffering —perhaps through no fault of his own— because of a physical breakdown. She tries to secure adjustment or readjustment to new conditions. She makes an economic survey. She follows the patient to his home—the so-called follow-up system—and sees whether the after-treatment can be or is carried out. Ignorance, poverty, scanty or poorly understood directions given by a doctor may make the hospital treatment of a disease a failure unless the social service worker or a visiting nurse follow up and see that the after-care is granted the patient. Many a failure in the case of an infant is to be attributed to the fact that when the babe leaves the hospital the details as to feeding are not attend to, through ignorance or indifference or lack of means. The social worker guards against such failures. And the end results of many an illness are not known and many valuable lessons are lost unless this department follows up. The hospital, then, is a training school for social workers and they in turn make more efficient the work of the physician. Here again the patient is the beneficiary.

There is an opportunity in a university hospital such as the new one just opened, for departments other than the medical to help and to profit. The undergraduate and graduate students of sociology should be allowed to assist, to observe and study in the wards and in the out-patient department. The hospital may well be utilized as a laboratory for training and for original investigative work in this subject, and perhaps in economics as well. Poverty, illness, trade relationships, public health, heredity, public and private charity, these and many other questions may be investigated by undergraduates or by graduates with advantage to the hospital, the patient and the public.

7. The Patient—We commonly think of the hospital patient simply as one who is treated for his illness. We forget that he is or may be educated by the hospital. Many a patient has had in a well-conducted hospital his first lessons in obedience—he is obliged to do as he is told by his doctor and his nurse. In cleanliness—care of the teeth, bathing, etc. In dietetics—regularity of meals, kinds of food. Consideration for others—he can't whistle or smoke in the ward. Courtesy, gentleness—he learns the soothe and comfort of a kind word and considerate handling of a painful part. A month's stay in a good hospital has started many a rough-neck boy or hoydenish girl on a new path with the amenities of life as ideals rather than the asperities.

I once invited a self-centered complaining hospital patient, a woman, to go with me on my rounds through the hospital. I purposely showed her all the worst cases of my own and I borrowed from my colleagues. She saw all the paralysis, dropsy, deformity, extreme anemia, emaciation, pain, difficult breathing that I could find available. I made few comments but saw to it that the harrowing features of all these cases were presented to her. She was a keen, discerning woman. She said, "Doctor, I believe you did this on purpose. But whether you did or not I have learned a lesson. I have very little to complain of, my suffering is as nothing. I will try to overlook it." And she did. From that day she was a changed woman.

Medicine is not yet an exact science. Perhaps it can never be at least in the sense in which astronomy or physics or mathematics are exact. But a stay in a hospital by an observant patient will often wean him from his penchant for some of the many healing cults that are so rampant today as they always have been. He sees the fever and pain disappear and recovery rapidly follow the draining of the deep-seated abscess but with no study of Abrams electronic reactions. The emaciated diabetic already passing into coma is rescued from impending death by a few hypodermic injections and by a diet accurately estimated by formula and by scales but with no adjustment of displaced vertebrae. The cyanotic, dropsical patient fighting for breath is given a few doses of medicine, made to keep quiet and to eat specified food and in a few days is relieved of his distressing symptoms though he may read with pleasure the writings of Mencken or Schopenhauer rather than those of Mrs. Eddy. He sees close observation, careful physical examination, chemical and instrumental tests that are made with no pretense at the mysterious or non-understandable and he is unconsciously weaned from the cult, whose main attraction is its air of mystery and its appeal, with promise, to hope, the last of nature's gifts to leave Pandora's box.

The hospital may and should do much to educate patients as to ways of right living and right thinking.

8. Were there time I might refer specifically to two other features. I have mentioned them incidentally. Physicians will understand, lay people may not fully grasp their significance. I refer to importance in every well-conducted hospital of investigating disease processes and learning of the causes of death by postmortem examinations. Even doctors often shrink from thinking of this when it concerns their dear friends or relatives. But without such study diagnosis go astray, over self-confidence may lead to a repetition of costly errors, to loose habits of thought and practice. Nothing will serve to keep a hospital staff more in line with facts with its feet on the ground than thorough autopsy study, with relentless yet friendly and helpful mutual criticism.

And the second point. Throughout the hospital there should prevail the spirit of research. Only a small proportion of doctors are really fitted with the imagination, the industry, the good judgment to be independent investigators. Many more can investigate if they are guided by others. But without research, in the pathologic and clinical laboratories, the X-ray department, at the bedside, in the operating room, in the training school, the social service department, the hospital becomes stagnant and unproductive. To be progressive the hospital must not only teach but must add to knowledge something of the new.

9. The Public—And lastly I conceive it to be the duty of a hospital to function as a center for the education of the public in health matters. A public hospital as is yours, owes a duty to the state. It repays the state in its care of the sick, its education of students, doctors and nurses. But it may and should be a center from which there goes to the public, the lay public I mean, knowledge on medical matters. The day has passed when medical knowledge should be a book opened only to physicians. The public has a right to know and is eager to know about disease, its prevention and cure. Popular articles in the daily press and in lay magazines are widely read and sometimes understood. A hospital may help in the spread of accurate knowledge concerning medical matters, expressed so simply that its meaning is grasped by any intelligent reader. How this should be done is not here taken up. It may be by classes, by demonstrations, by bulletins, by radio, by public lectures with lantern slide or even clinical demonstrations. The good, if this is rightly done, will be great. In this way the important facts concerning many diseases can be set before the public—the venereal disease menace, diabetes, heart disease, tuberculosis, goitre, tumors, care of infants, diet, the care of teeth, eyes, etc., etc.

The hospital owes it to the public and by giving it will itself be blessed.

My apology for speaking to you on a subject that needs no elucidation before the medical faculty of the Universiy and the staff of the hospital is that I understood my audience would be made up largely of laymen and undergraduates and those not as familiar with these questions as physicians

themselves. It is to them especially that I have spoken. To them I repeat that your splendid new hospital will fulfill its highest function if it constantly keeps to the front the education features to which I have briefly referred.

THE UNIVERSITY HOSPITAL—ITS SOCIAL AND ECONOMIC SERVICE TO THE STATE

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The statement that over 35 per cent of all the young men examined for service in the World War must of necessity be eliminated because of physical disability by the first examination, and that an additional 10 per cent were rejected later as a result of examinations made in the training camps, is a staggering revelation to proud Americans. Many of the thirty-five or more of each one hundred eliminated first may already have known of their disability; but probably few of the other ten did. This is one of the mysteries of life, that so many apparently healthy persons have defects of which they are unconscious, defects which can be demonstrated by careful examination, which early are remediable, and which, if allowed to progress, may develop into conditions which later are only too evident, are serious, and sometimes even incurable. That so many of the young men were unfit for war, and therefore are unfit also for the severe crises of more normal life, should indeed attract the attention of each state. Some are conscious of their handicap but many are not, thanks to that very wide margin of safety which conceals until later life many a serious defect. Such latent troubles may be likened to the rocks at the seashore which are not visible at high tide but which at low tide, although no larger than before, project threateningly. So the youth while the tide is high may for years harbor a latent trouble, and then in some crisis of life, just when he needs depth of physical reserves, he "strikes" this and the result may be physical disaster. Or, to use another illustration, there is in Southern Indiana the so-called Lost River which as a sizable stream wells up from the earth. We can see no evidence of its source and yet we know that small streams unite under ground later to emerge as this river. So it is that many of the diseases of adult life which interrupt perhaps suddenly a period of years of apparently good health, diseases especially of the heart, joints, and kidneys, are only too often lost rivers which had their sources in the infections and diseases of childhood. In the field of mental hygiene especially one finds such troubles, both physical and mental, which are latent yet ready to work disaster. Under the title mental troubles we include first the insane and near-insane states; also, those conditions often grouped under the names neurasthenia, psychiasthenia and hysteria, that is, states of inadequacy, which explain so many unhappy, handicapped lives; and, finally, we include also many social maladjustments, usually not recognized as abnormal, which manifest themselves in antisocial attitudes and as unfortunate urges or inhibitions. Many of these states of mind, which one would at first consider purely mental and social, have a physical element of greater or less importance which must be correctly treated if the case is successfully to be handled. The line between the mental and physical in human pathology is but an imaginary one and to get results we must treat both together; we cannot afford to neglect either. Latent diseases of the blood vessels, lungs, hearts, etc., diseases which give no characteristic symptoms other than too great fatigation, explain in no small part that lack of ambition and of initiative, and the slothfulness which leads to indigence, and these it is which lead to social parasiticism and make necessary the bulk of public or private charities. Slight grades of disease may cause that "laziness," that mental depression, which prevents the normal advancement of the individual in the industrial world; and the causes of the resulting inefficiency misunderstood both by individual and by society, there arises the dissatisfaction which provides the professional labor agitator with many of his blind followers. Finally, physical weakness does not of itself directly cause criminals, for it might as well produce saints, but it often does explain the antisocial mental attitudes which do lead to crime.

These groups which we have enumerated, the physically sick, those apparently well but latently sick, the insane, the socially maladjusted, the emotionally handicapped, the criminals, the dependents, and others of antisocial nature, furnish practically all of the most difficult and expensive problems which a state must of necessity meet. To solve these may require several quite different agencies, but the elements of physical diseases are so important in their causation that they cannot wisely be ignored and they can best be studied by a state university. She has the groups of specialists necessary, and your splendid hospital is the proper laboratory for this research.

May we at this point protest that this is not a paper on so-called state medicine. It is, however, a paper on the value of medicine

to the state. We certainly do not believe that as a primary duty the state should undertake the care of the sick, not even of the indigent sick, for they deserve much better care than that furnished by "the lowest and best bidder." But when the professional care of the sick, whether pauper or millionaire, is one item in a program of the education of doctors and nurses, or in incident to the solution of difficult physical, mental, social, industrial, and criminal problems, then a state is ready to erect a miracle like the hospital we now dedicate, and should begrudge no expense in its maintenance, knowing full well that however great this may seem it is in fact an economy.

University hospitals are often misunderstood since they belong to the twentieth century while, unfortunately, the great philanthropic hospitals of today proudly express the social philosophy and conform to the philanthropic ideals of several centuries ago. Your university hospital envisages present day problems and organizes her forces in an efficent manner to meet present day responsibilities. The others do not. To illustrate this we would invite you to consider that popular catch phrase heard so often when hospitals are under discussion, worthy poor." But who are the "worthy poor"? But one answer is possible, "The very poor". And why are the worthy poor so very poor? Quite four hundred years ago, when the ideas of hospitalization so prevalent even today crystallized to their present form, society consisted of at least two distinct classes: a small aristocracy who ruled society by virtue of its so-called divine right, and the great mass of persons who, whatever their several abilities, were in large measure doomed to follow in the industrial and social footsteps of their fathers. Few succeeded in changing their social status no matter how worthy they might be or how unworthy the aristocracy which ruled them. These "common people" were poor, as a rule very, very poor; the aristocracy saw to that. Some of the more charitable of the ruling class, feeling more or less keenly their responsibility for the masses apparently entrusted to them, created for them (and entirely at the expense of the common people) the hospitals, schools and other public institutions which today cities and states support. In a society like ours, however, in this country which provides abundant opportunities for even the humblest and which encourages each to climb as high as he can, in these days of employers' liability laws, of savings banks and of insurance and benefit societies the ablebodied destitute man becomes an object of suspicion. Why is he so poor? Is he lazy, shiftless or is he feebleminded? Why has his wife or child been left without insurance or savings? The state is interested to know since the answer may lead to a necessary reform. Many of course are very poor and very worthy but their number is progressively becoming smaller. My friend's servant asked of him, one recent Monday, an advance on his wages of $25. When reminded that only two days before he had been paid $35 he confessed that he had lost it gambling. My friend said, "Should you not save? What if you were to become sick?" The houseman replied, "If I were sick and had a little money, I would have to employ cheap doctors; but if I haven't a cent then I can go to the City Hospital and even you, the most expensive man in town, will operate on me for nothing." There is indeed something wrong in that system of philanthropy which supports hospitals which welcome the shiftless nere-do-well and organize for his care the best doctors of the city, but which employ a special detective force to prevent his more thrifty brother who happens to own a little store from imposing on their "charity," leaving the latter to the mercies of those men whom he can afford to pay. Who then is worthy of free medical care? Society now gives a different answer and, strange to say, the change of opinion expressed by this answer has not dried up the stream of philanthropy but rather has increased it. The answer is that all good citizens are worthy, but they are worthy in proportion, not to their uselessness, but to their usefulness. The state realizes that the health of her citizens is her greatest wealth. She desires as citizens for times of peace as well as for war men and women strong in body and moral in mind. To obtain these she must provide means for the early diagnosis and the prevention of latent troubles; this means better mental hygiene; and especially it means better family doctors, for it is they who first see or do not see these latent dangers. Physical and mental excellence in much greater measure than now is quite possible, since in its early stages nearly every medical problem can be solved, and most serious medical conditions are so because they have been neglected.

The first step in the solution of this great state problem is the education and training of more skillful doctors and better nurses. Another step is more research work on these great problems by your scientists. Of course this will not be done all in this one hospital, but the example of this one will improve the quality of work of every doctor in the state. The actual good done here will be trifling compared with the indirect good which this hospital will accomplish. Treat one patient

well, and you have treated one patient well; but teach one student how to treat that patient well, and you have helped every one of his future patients. Nurse one patient well and you nurse one patient well; but teach one pupil nurse how to do it and you have helped all of her future patients. For that reason all done in this hospital should be of the highest possible quality. Then the service here will remain an ideal towards which each of your graduates later will struggle. Such is the unique influence of a training and research hospital.

This hospital, however, will do more than teach; it offers an opportunity to develop and to test efficiency. The other faculties of this university may conceive it their highest function to impart knowledge, but we of the medical are confident that our duty is not alone to impart knowledge, but is also to help the student to translate this knowledge into power, and not only into power, but into power for good. In the streets of our cities one meets trucks filled with new automobile parts. Each part may be perfect and yet not one is as yet assembled for work. Some may never be. How different is such freight from a machine every part of which is at work! So it is that too often a student leaves a school with his mind filled with facts as yet unassembled. It is in the ward, not in the class room, that the student begins to assemble and to test out at least a few of his many acquired mental medical mechanisms. In the class room and laboratory we show him how to do this; in the ward he practices until he does it well. I may "know how" to play the piano but I know that if I tried you would not listen long for I have never practiced. Perhaps if I were to practice it might develop that I so lacked musical sense that I never could play well and therefore should stop trying. At the ball game I may yell myself hoarse coaching and criticizing the team; I may know a great deal about the game; but did I try actually to play ball I would present a sorry spectacle on the field. So it is that a university may be satisfied to graduate men rich in information about many subjects, but she should not give the medical graduate his diploma before he shall have proven his efficiency in using at least a little of this knowledge sufficiently well to justify our faith that he will develop into a good doctor. Yes, before he gets his diploma his knowledge should be in process of translation into power and this power should be power for good. Granting that the student "knows his medicine" and already has proven his capacity for developing efficiency, what will he do with it? Give, in a technical school, two boys with approximately equal abilities in mechanics the same good training and the one may become an inventor and the other a safebreaker; and the better the training, the more dangerous the safebreaker. Give two boys with approximately the same artistic ability the same training in art, and the one may become an artist and the other a counterfeiter, and the better the training the more dangerous the counterfeiter. Similarly we of the medical school have frequently observed that accurate information concerning the dangers of the vices does not of itself lead to virtue; it may, but it sometimes makes its possessor a shrewder, safer, and more dangerous rascal. So it may be that even the most brilliant student in his class should not be allowed to graduate provided he has given evidence of evil; and if so, the more brilliant he is, the more dangerous he is likely to become. Leave out of the medical graduate's program the element of unselfish service and what kind of a doctor will he be? Dr. William Osler, back in the 90's, expressed this to the students entering the Johns Hopkins Medical School as follows: "If", said he, "your hope is to enter a lucrative profession, please go home, but if you have come here in the spirit in which the missionary goes to his foreign field, confident that in medicine you best can use your talents in the service of your fellowman, then we welcome you." And yet I wonder if the citizens of Michigan would support you of the medical faculty were you to say to a student, "You may be the honor man of your class but since we doubt the quality of your moral fiber no diploma shall you receive?" I am not sure. This may seem a very idealistic point of view, but quality of service both technical and moral is the crucial test of medical education, and such a test can be applied only in a great teaching hospital like yours.

It is a hospital like this also in which the student's intellectual honesty can be developed. Over twenty years ago the medical students of one school were given the opportunity to volunteer for social work among their patients in order that they might better appreciate what is involved in the diagnosis and treatment of even an apparently simple medical case and might realize how much harder it is to cure a case than to give the correct conventional therapy. They soon found that while one man might need medicine to cure the physical complaint which had brought him to the hospital, and while another with similar symptoms might need an operation, that a third man with similar symptoms might entirely fail to get well unless in addition to the medicine or operation there was also affected for him some reorganization of his home, his work, his

worries, etc. That is, if we really wish to cure a patient we must meet all important etiological elements of his case. Our patients come to a hospital because of apparently purely physical troubles. They seldom know what the matter with them is, but they have faith that we can find out; and they also have faith that having found out we will do our best to help them. If to do this requires the co-operation of druggist, surgeon, or dietician, we always have done our best; if of a social worker also, perhaps we have tried; but if it requires the cooperation also of clergyman, rabbi, or priest, what then? In other words, should our graduates be encouarged to make the mental reservation that their therapy is to be either medical or surgical, and that if any other agency is necessary for results that they have the right to ignore it? The state supports a medical school not in order that our graduates may receive medical diplomas, but in order that through their aid its citizens may get well and may keep well. It is by our fruits that the state shall know us. She reads our results not in terms of conventional treatments but in terms of health. Society is no longer interested in the descriptions of successful operations if they are recorded in obituary notices. No clinic can afford to be satisfied with partial success since such are in corresponding degree partial failures, and partial failures too often later develop into complete ones. One great physician in 1897 said of his clinic, "I wonder if more than three out of ten of these patients can get here the help you need? To help the other seven we are not yet the organization." He referred to an organization which could handle their domestic and industrial needs. By such department we do not refer to social service workers who, as free lances, wander through the wards choosing their own problems and working them out in their own way; certainly we could not discourage such work, on the contrary we would that many charitable organizations might maintain workers in the hospitals; we refer to those social workers who belong to a well organized diagnostic and therapeutic team, well trained for team play. In this team are physicians, surgeons, laboratory men, nurses, dieticians and others, and the signals for the various lines of effort are given only by the man who assumes the profesional responsibility for the care of the patients. Thanks to these so-called environmental workers we are able to assume a quite different attitude toward our patients than we did twenty-five years ago. We remember so well the blacksmith with aortic insufficiency who when he left after his fourth admission said pathetically, "I am going back to the forge, doctor, for that is all I know how to do. I have a wife and children and must work there every day I can until I drop dead," which he did after his next admission. Now, thanks to an environmental worker, such men find better jobs and are spared longer to support their families; and the hospital bed he occupied is available for other needy persons. We remember the poor Italian woman with mitral stenosis who was admitted to that one clinic twenty-six times. We remember also that that clinic was rather proud of that record. Now it would probably be ashamed of it, for no hospital should allow the values represented by those many admissions to be so carelessly squandered. A good social worker might have kept that woman at home longer and in better health, and, therefore, that hospital bed ready for several other patients. We remember well a little baby with digestive trouble whose first admission cost the hospital $42.50. His mother brought him back in about three months with exactly the same symptoms, and this admission cost the hospital over $50. A few months later his mother brought that child back for the third time in much the same condition. Then those hospital trustees instructed that staff to educate that mother so the benefit of treatment might not be so completely lost. That marked a new era in hospital management. Were the hospital storekeeper to allow good meat to spoil for lack of refrigeration; were the cooks to use food wastefully; were carelessness proven in the pay roll; how the critics of the hospital would cry for reform! But what of the preventable waste of days and weeks of careful diagnosis and treatment when social care would prevent much of this loss?

It is only in wards of a University hospital that the various departments of a university can unite in "team play" for the study of state problems. Few of even the seemingly physical cases can be adequately studied by one department only: the co-operation of five or six may be necessary. Here the department of sociology can find a valuable laboratory; here the department of economics can find its problems; here the department of psychology can be of great service. In other words, an entire university can focus its attention on many of the most important of the state's problems. Do not misunderstand us, we are not talking about a "clinic" group. That, while splendid in its way, is a quite different organization. It is only in a university that several highly organized independent departments can converge their efforts towards the solution of the same problems, each viewing it in the light of a much broader ex-

perience, and each seeing in it the possibilities of much wider service.

Finally, a hospital like this has a message for every home in the state. Here the sick may get proper care. Here the wife and mother may learn better how to meet her problems. Here the housewife should see cooking, laundry, dusting, sweeping or even washing the floors done ideally. Here the medical student and nurse see diagnosis and treatment at its best, and carry these images with them as ideals in their future practice, and to this hospital they can return in order "to keep in tune" with advancing medicine. Here state officials can find solutions for many of the state's most perplexing cares, disease, dependency, even crime. It may seem an extravagant statement, but where can the State of Michigan get as much actual aid in building up healthy, normally minded, law-abiding citizens as in this hospital, which, like a great lens, focuses the attention of practically all of the departments of her great university on so many serious state problems?

SYNERGISTIC ANALGESIA DURING LABOR*

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HISTORY

Seventy-seven years ago, Roux and Pirogoff originated the idea of administrating ether via the rectum. They used undiluted liquid ether. But Magendie pointed out the dangers attendant upon introducing ether itself in this manner and recommended the use of ether vapor. Pressure was obtained from warming the ether container. Eighty-one cases of surgical anesthesia were reported, with only two deaths. Unfortunately the data recorded concerning the death of these two cases were very meagre. The profession did not take up this idea and it fell into the discard until 1884. In that year, Yocum of Copenhagen and Moliere of Lyons, almost simultaneously reported the employment of a hand bellows to force the vapor into the rectum. They soon went back to the idea previously advanced, however, and placed their ether container into the colon by means of a rubber tube. In the same year, Wier, Bull and others reported this method to be unsatisfactory and cited cases having bloody stools and excessive rectal irritation. The inability to measure the amount of ether entering the colon or to control the stages of anesthesia was also determined to be a decided disadvantage.

Practically no further advance was made until 1902, when Cunningham and Lahey proposed using an air and ether mixture. This proved much more successful. Numerous reports were all kindly disposed toward the method. At first no return flow for gas was provided other than inserting a finger beside the tube whenever necessary. Later a return tube was added to the equipment which could be opened or closed by the anesthetist.

In 1910 Sutton devised a rather complicated apparatus for the use of ether and oxygen. This was tried on a series of 140 cases at the Roosevelt hospital with very satisfactory results. One can imagine, however, the vigilance and the more or less extensive apparatus required to administer ether and oxygen in this manner. Couple this with the fact that there is a broad knowledge of physiological factors with which the anesthetist must be conversant and one can understand why this idea was more or less discarded for the less complicated inhalation method.

In 1913, Gwathmey reported on the use of ether in oil. This was after painstaking research by Baskerville of New York, on the evaporation rate of ether from various oils. It was demonstrated that practically any oil formed a union, essentially of molecule to molecule; that this union, for all practical purposes, was not dissolved excepting through the process of evaporation; that because of these physical factors, the ether dosage could be accurately determined; and that the total required dose could be administered quite rapidly with no risk of deepening the stage of anesthesia to the danger point. This last was because the evaporation of ether from oil quickly assumes an even steady rate. An even plane of anesthesia per rectum was thus made possible and by a simple method.

In 1923, ten years after first being used for general surgery, Thaler and Hubel first employed the method in over 100 obstetrical cases with very satisfactory results. Out of that number there was only one failure and no deaths. All babies were unaffected. In cases where labor tended to be retarded, they administered quinine or pituitary extract.

The addition of magnesium sulphate to the armamentarium of the anesthetist was due to a discovery by Meltzer in 1905, while experimenting for other purposes. After finding that two drops of a 5 per cent solution of magnesium sulphate injected intracerebrally into a rabbit produced a state of com-

*A report of forty-one cases from the Obstetric and Gynecologic Clinic of Harper Hospital.

plete relaxation and anesthesia lasting a number of hours, he and his colleagues conducted further investigations along this line. As a result, they established the fact that magnesium sulphate has decided and practical anesthetic properties. Complete anesthesia in man was demonstrated by the subcutaneous injection of magnesium sulphate in a 25 per cent solution.

It was not until 1920 that Gwathmey employed the principle of synergism to produce analgesia and anesthesia via the colonic route. The end result of these experiments has culminated in the method of synergistic anesthesia first employed by Gwathmey during labor and various applications of the idea as described herein.

PHYSIOLOGICAL FACTORS

Synergism might be defined as that result caused by two or more drugs mutually increasing the effect of one another to a point in excess of the sum of their individual pharmacological actions. We shall make no attempt to explain synergism. Regarding it very little is known other than that we can observe its action. Familiar examples of it are morphine and scopolamine, morphine and nitrous oxide and morphine and ether. We are principally concerned herein with the results of synergistic action produced by the combined use of magnesium sulphate and ether.

Meltzer stated in 1913 that by giving a small amount of ether, insufficient to cause anesthesia and then giving an insufficient amount of magnesium sulphate intramuscularly, a profound anesthetic could be produced and maintained for several hours.

Meltzer and Auer conducted extensive experiments which proved that magnesium sulphate in dilute solutions injected intravenously would produce a gradual decrease in the respiratory rate. Continuance of administration would gradually slow the rate of respiration which after a wild, brief struggle, would terminate in complete rest. Rapid injection of concentrated solution intravenously would produce very prompt termination of respiration, and in most cases, without the excitement usually accompanying asphyxia. When applied directly to a nerve, magnesium sulphate acts as a local anesthetic. When injected intramuscularly, it can produce complete muscular relaxation. Complete anesthesia can be attained by magnesium sulphate alone. It never produces excitement. The only deleterious action demonstrated was the inhibitory action of excessive doses on the respiratory center. Due to its local anesthetic action, the injections are painless. Meltzer and Auer further demonstrated after their series of experiments with animals, that the injection of any calcium salt neutralizes almost at once, any effect obtained by the subcutaneous injection of magnesium sulphate. He states that, "Calcium efficiently antagonizes the abnormal activity of its three inorganic associates in the animal body, Mg, K, and Na, be the activity an over inhibition or an over excitation."

Regarding any danger of infection from hypodermic injections of sterile magnesium sulphate, a series of over one thousand cases have been reported to have received magnesium sulphate intramuscularly without causing a single slough. None were observed in the series of cases herein cited.

A. V. S. Lambert of New York should be credited with demonstrating the synergistic action of magnesium sulphate and morphine. He first demonstrated the prolonged effect of morphine when given with magnesium sulphate. The action seems, perhaps, best explained by stating that magnesium sulphate acts in a way somewhat similar to a mordant in dying fabrics. It seems to lock the morphine in closer connection with the body tissues, increasing its analgesic properties and permitting a much slower elimination of it from the system. Lambert should also be credited with first demonstrating the synergistic action of magnesium sulphate with nitrous oxide and oxygen. It is conceded that nitrous oxide is more dangerous when administered without a preliminary dose of morphine. Since the administration of magnesium sulphate with morphine extends the analgesic action of the latter past the time period where it can produce a depressing action on the respiratory center of the new born infant, the use of this combination with nitrous oxide and oxygen could be made a valuable adjunct in obstetrical cases. Although the writer has been unsuccessful in conclusively demonstrating the fact in the cases cited below, nevertheless, he is of the opinion that proper injections of magnesium sulphate alone can be made to produce a satisfactory synergism with nitrous oxide and oxygen whereby nitrous oxide can be more safely administered to patients during child birth. There would be no struggling and practically no nausea or vomiting.

After proper preliminary preparation with morphine and magnesium sulphate, there is seldom the slightest discomfort, even in the earliest stage of administration of the retention oil-ether enema. Within three minutes after beginning administration, the ether has reached the cecum. From the moment of entry it has begun the process of being heated to body temperature. With the eleva-

tion of temperature, ether vapor begins forming and the whole colonic lining acts as an absorbing surface. From the colonic capillaries, it proceeds through the portal system to the liver, thence through the right heart to the lungs. Ether can be detected on the breath usually within five minutes from the beginning of administration, although but a very small amount is liberated into the bronchial tree. The fact that the ether breathed comes from within, already warmed and moistened, explains the very obvious absence of irritation to the respiratory passages. The absence of irritation to the stomach and kidneys is likewise explained by the very gradual liberation of ether from the oil in the colon.

With colonic ether, the higher brain centers are the last to be affected. The first symptom is usually one of sensory paralysis. This is more noticeable in the extremeties and gradually becomes general. Consciousness may or may not be lost but, if lost, it returns much earlier than somatic sensory perceptions.

TECHNIC

Drugs Employed:

1. Morphine sulphate.
2. Magnesium sulphate, (C.P.) sterile, 50 per cent solution in 2 c. c. ampules.
3. Gwathmey's rectal retention enema:

Ether	℥iiss
Quinine hydrobromate	Gr.X
Alcohol	℥ii
Olive oil	q.s.ad f℥iv

Apparatus Employed:

1. Hypodermic syringe, 5 c. .c capacity.
2. Needle, 19 gauge, 1 1-2 inches long. One that fits the syringe.
3. Rubber catheter. A good, stiff 20-22 French. Anything larger tends to permit of too free flowing. Cut the flair off the distal end to permit the syringe to fit more perfectly.
4. Syringe of 30 c..c to 50 c.c. capacity. One whose tip will fit the catheter.
5. Thumb screw clamp. Used to clamp the catheter or reduce its capacity of flow.
6. Vaseline.
7. Adhesive tape.

Mode of Procedure:

1. Note the progress of dilation. When the patient is admitted to the hospital, the progress of dilation is noted at once by the interne, after which, if possible—

2. A soap suds enema is given. When the primiparous cervix is four centimeters dilated, with pains coming every three to four minutes and lasting at least thirty seconds.

3. A tap water enema is given until the return flow is clear. Feces or soap suds seem to decrease the efficiency of the oil-ether enema and a mucosa coated with dejecta retards the rate of absorption. After the tap water enema has been started, not necessarily waiting for its complete return—

4. An intramuscular injection of sterile magnesium sulphate—one ampule—is given, dissolved in which is an amount of morphine which the physician judges necessary for the case. If the patient is extra excitable and delivery is not expected for several hours, one might give grains one-fourth. If labor is estimated to be of shorter duration, grains one-sixth to one-eighth is given. If delivery is expected within two hours, the magnesium sulphate is given alone. Then, when the dilation has approached six centimeters (we are taking the primiparous cervix as an example)—

5. The patient is prepared to receive the oil-ether retention enema.

a. The patient is placed in an extreme left Sim's position with her hips elevated on a pillow. Her left leg is practically straight and the right one semi-flexed. After impressing on her that the medicine she is about to receive is for her pain, she is told to not press down during contractions and is instructed how to take quick, short breaths instead. Do not promise her sleep or entire relief from pain.

b. The anus is then coated within and without with vaseline, to guard against a possible stinging of the ether.

c. A good, stiff catheter is then introduced into the anus from four to six inches and held in place by a strip of adhesive tape on the right buttock, crossing the catheter not more than an inch from the anus. If the catheter is not stiff, it can not thus be held as it will buckle during pains and be expelled.

d. To the other end of the catheter is fitted the barrel of a 30 c.c. to 50 c.c. syringe. By cutting the standard flair from the distal end of the catheter, a more fluid tight joint is obtained.

6. Giving the retention-enema:

a. An ounce or more of the retention enema is poured into the barrel of the syringe. If it begins flowing into the rectum too rapidly, the catheter is gradually impinged by means of a thumb screw clamp previously placed just below the syringe. The clamp is adjusted until the rate of flow is such that fifteen to twenty minutes will be consumed in administering the whole enema.

If, for any reason, the flow is not free, the syringe plunger is kept within easy reach to lend a gentle impetus. The thumb screw clamp can be closed between syringe-fulls when the plunger is used. This permits removal of the syringe from the catheter between refillings. Otherwise more or less of the enema would be expelled and lost while the plunger was being withdrawn from the barrel.

b. When a contraction begins, a crumpled towel, preferably Turkish, is pressed firmly against the anus until the pain is gone.

c. After all the enema is given, the catheter is left in place with the clamp closed. It is convenient to fasten the looped catheter on the right buttock with another adhesive strip, in such manner that the end of the catheter points downward, for convenience in emptying contents into a basin if necessary. While untoward incidents are hardly to be expected, it is well to leave the catheter thus in place for about a half an hour or long enough to satisfy oneself that an emptying of the bowel might not be indicated.

d. For fifteen minutes after the administration of the enema is completed, a crumpled towel is pressed firmly against the anus during each pain. This is a prophylactic measure against ejection of any portion of the enema.

7. After care, following the oil-ether retention enema:

a. By the time the enema has been given, the

patient is usually quiet. The room is then darkened, cotton placed in the patient's ears and as few manipulations permitted as possible.

b. If possible, it is highly advisable to make no rectal or vaginal examination for an hour after finishing the administration of the enema. It not only makes the effect less satisfactory but may cause a portion of the oil and ether to be expelled.

c. Within an hour after giving the enema, an ampule of magnesium sulphate should be given. This tends to prolong the effect of the ether. Then this is repeated as often as the physician thinks necessary to prevent restlessness. It is important to remember that the onset of restlessness must be fore-stalled by the magnesium sulphate. Once restlessness actually becomes manifest, the amounts of magnesium sulphate employed do not prevent or retard the process of reaction. It is, therefore, sometimes found advisable to administer three or four additional 2 c.c. ampules of magnesium sulphate, usually thirty minutes apart, to keep the patient as well relaxed between pains as she should be.

d. With the patient in a state of analgesia, intelligent watching is necessary.

(1) It should be borne in mind that this system of treatment does not necessarily induce sleep. The patient may be noisy. A pain memory may be carried over from consciousness, causing her to complain bitterly of pain of which she has no recollection the following day.

(2) It must not be forgotten that the patient is in a state of analgesia. The observer might be deceived into thinking she had the full possession of her faculties. Therefore it is imperative that orders be left to watch the bladder for distension. Also, since the analgesia often robs the observer of the usual warning signs and sounds as the head approaches the perineum, it is wise to impress on one the necessity of guarding against advancement unawares.

8. The oil-ether enema can be repeated when indicated, if three or more hours have elapsed.

9. It is to the baby's advantage to give as little inhalation anesthesia as possible on the delivery table.

CLINICAL OBSERVATIONS AND CASE REPORTS

The collection of clinical data on such a subject, when dealing almost exclusively with private patients, means working under more or less of a constant handicap. Each physician has his own ideas on therapeutics which differ somewhat from his colleagues. At one time the patient is seen by the attending physician and prescribed for. Again, the patient is seen by the resident physician and prescribed for. While always striving to use each physician's therapeutics on his own cases and consulting with each one insofar as is possible, yet, when granted permission to try out a new technique, there are bound to be differences in procedure, which explains in large measure the variance in treatment observed in a large number of cases.

We wish to thank the members of the staff whose co-operation helped make these observations possible; also the firm of Parke-Davis & Co., who supplied the ampules of magnesium sulphate.

Most of the cases have had the combined treatment, namely, preparation, preliminary hypodermic, and oil-ether enema in the order named, with or without supplementary ampules. A few cases have had the morphine and magnesium sulphate without the enema, while some have had just the enema and magnesium sulphate.

The clinical observations have been included, for the most part, in the case reports, that seeming to be the most logical place for them. At no time have any deleterious results been observed in the mother and only one where a question of harm to the child might be raised. That was in Case No. 24, where an unusually large amount of inhalation ether was used and the child at birth needed a moderate amount of resuscitation.

One has been unable to discover anything but benefit acruing to the patient from this technique. No unusual changes in the urine or blood pressure have been found. One might consider the possibility of hypodermic abscesses from the intramuscular injections. There have been none observed in these cases nor could any be found in the literature. One has administered magnesium sulphate as part of a technique for surgical anesthesia in over a thousand cases without a single abscess. The question of causing an irritated anus and rectum has been raised but in no case did the anal irritation last over ten minutes. If ample time is allowed after the preliminary hypodermic there is no marked complaining.

All patients have been watched carefully for deleterious results from the oil-ether enemata. Although there is small probability of ever finding any, yet it is thought best to leave the rectal catheter clamped and insitu to facilitate a rapid removal of the enema if necessary.

Since the use of this technique is now becoming more general, an extra safeguard is now being supplied by having physostigmin and sterile calcium chloride always on an emergency tray. The necessity of ever being obliged to use them is doubted. Calcium ions, given intravenously, are proven to completely reverse the effects of the ions of magnesium. This antagonism works quickly and effectively. Physostigmin acts to overcome the toxic effects of the magnesium ion in three ways: principally by stimulating the respiratory center; also by antagonizng the effect of the magnesium upon the nerve endings of the respiratory muscles; and, further, by stimulating the nerve endings of the pneumogastric within the lungs. The only situations conceivable where either drug might be needed are

where too much inhalation anesthesia might be given. This might occur had the anesthetist not been informed of the employment of the synergists. The giving of the calcium chloride to the mother would probably never be called for. If the infant's respirations were retarded, a small dose of physostigmin might be indicated.

Out of one thousand and fourteen cases in the past year, there have been none where the synergists would have been contraindicated. The method seems especially indicated in the case of the elderly primipara with a tough cervix and with prospects of a long, hard labor.

The following cases had the combined treatment:

Case No. 1—No. 12213. September 9th, 1924. Patient para i; Age 24, American. Normal weight about 135 lbs. Normal pregnancy. Position. L.O.A. Total hours of labor was twenty-five. When she had labored four and three-quarters hours, she was given morphine grains one-sixth in an ampule of magnesium sulphate. She was prepared for an oil-ether enema which was given after six hours of labor when four centimeters dilated. Approximately two ounces of the enema were expelled a half hour after having been given and another ounce of fluid was expelled an hour later. It is impossible to state how much of the retention enema was expelled. She worked well with her pains and dozed off between them. This continued for four to five hours. The pains then gradually became more distressing again. After twenty-two hours of labor, dilation was complete. A normal, seven pounds, founteen-ounce baby was delivered by low forceps. Nitrous oxide was required much as usual. The patient later said that, while she was conscious of suffering during pain, she obtained rest and sleep between times. She said further that while the enema felt cold and smarted a little about the anus for a few minutes, that it was nothing when compared to the relief she obtained.

Conclusions—The oil-ether enema was given a trifle too early. She should have been nearer six centimeters when the enema was given. Also supplementary ampules of magnesium sulphate, given about one hour after the enema would have prolonged the effect.

Case 2—No. 14793. November 15th, 1924. Patient para i; age 21, American. Normal weight about 145 pounds. Normal pregnancy. Position O.L.P. Total hours of labor was fifty-three. Membranes ruptured at onset of labor. After laboring eleven hours, she was found to have but four centimeters dilation. Because of considerable fatigue, morphine grains a sixth and scopolamine grains of two-hundredths were given. She slept for three and a half hours. The strength of the contractions was lessened very considerably for four and a half hours. At the twenty-fourth hour of labor she was dilated but five and a half centimeters. The pains were of fair intensity. She was very despondent and fearful. An oil-ether retention enema was given without a proper cleansing of the bowels and without a preliminary hypodermic of morphine and magnesium sulphate. There was some complaint of smarting about the anus for the first ten minutes of the administration. Forty-five minutes after the enema was given she received an ampule of magnesium sulphate and another an hour after that. She was permitted to become markedly restless before these were given and they did not produce the relaxation intended. At the thirty-fourth hour of labor hse had become quite exhausted. Dilation still stood at five and a half centimeters. Morphine grains a sixth and scopolamine grains a two hundred and fiftieth were given. Contractions lessened for four hours. At the fortieth hour, the dilation was unchanged Morphine grains an eighth was given. When the patient had been forty-four hours in labor, the dilation still stood at five and a half centimeters. An inertia had developed. She was then given morphine one sixth grain in an ampule of magnesium sulphate. This was followed in thirty minutes by an oil-ether enema. The patient was in a drowsy state of analgesia before the enema had all been taken. Five hours later she had been allowed to become almost too restless to be held in analgsia by further giving of magnesium sulphate. However, it was attempted by giving two ampules, one five hours after the enema and one a half hour later. This was without success. Yet, for the time she was under the synergists, she dilated almost to completion, there being but a small rim of cervix left. She was left to labor four hours more, after the effect of the synergists had worn off and then taken to the case room. What remaining rim there was was easily pushed back past the head. Delivery was then done by manual rotation anteriorly and applying forceps. The baby weighed seven pounds and ten ounces and cried readily. The patient later volunteered that the rectal medication "helped" her and expressed gratitude for having been given it.

Conclusions—There would have been no unpleasant anal smarting had the enema been preceeded by the usual morphine and magnesium hypodermic. In this case, morphine one-fourth grain in an ampule of magnesium sulphate was indicated at the twenty-fourth hour of labor, followed one or two hours later by the oil-ether enema. Then another magnesium sulphate ampule should have been given one to two hours later and every half hour if there was the slightest sign of a lessening in the amount of relaxation between pains, up to five or six ampules. The cervix would probably have dilated more quickly and analgesia would have been prolonged. She would thus have avoided the unpleasant experience of laboring through the last portion of the first stage without something to relieve the distress.

Case 3—No. 15315. November 28th, 1924. Patient para i; age 34. American. Normal weight about 165. Normal pregnancy. Position L.O.A. Total hours of definite labor was twenty-one. Pains were unusually strong. After eight hours of labor, with a dilation of seven centimeters, morphine one-eighth grain and scopolamine one two hundredth grain were given. This gave a moderate amount of relief for two and a half hours during which time she made practically no advancement. After twelve and three-quarters hours of labor, with dilation the same, an oil-ether enema was given without the preliminary hypodermic. The patient was extremely restless and complained bitterly of each pain, even after a decided analgesia was apparent to observers. After two hours she became more quiet and worked quietly during pains. She had received four ampules of magnesium sulphate in the two and a half hours following the enema. These were given at half hour intervals because of her lack of complete relaxation between pains. This gave relaxation although the contractions were about as strong as ever. Dilation was complete after nineteen and a half hours of labor. As the head did not advance readily after complete dilation, patient was transferred to the case room. Pituitrin XV minims did not produce any further advancement. A low forceps application was then made and a difficult delivery of a nine pounds fifteen-ounce, healthy baby was accomplished after a wide episiotomy.

Because of the extreme caustic in some of the patients complaints as well as because other observers were inclined to discount the relief obtained, the patient was questioned on the second post partum day. She expressed surprise at her complaints and knew

nothing of them. She said she had but a hazy idea of having hard pains and was exceedingly grateful for the relief afforded.

Conclusions—This illustrates the prolongation of analgesia by the proper administration of supplementary magnesium sulphate. No dependence can be placed on patients' statements. Pain-memories seem carried over with them into a state of analgesia at times. The best judge of the effect is the relaxation obtained between pains.

Case 4—No. 916. January 22nd, 1925. Patient para i; age 22. Russian Jewess. Normal weight about 160. Norman pregnancy. Position R.O.A. Total hours of labor was ten. After laboring moderately hard for seven and a half hours, morphine one-sixth grain in an ampule of magnesium sulphate was given. This was followed in an hour with an oil-ether enema. Dilation was six centimeters. The patient dozed off for about an hour, being unconscious of contractions which continued practically the same. The os was completely dilated an hour after the oil-ether enema was given. She was scarcely conscious of her removal to the case room. The anesthetist had administered a little more nitrous oxide and oxygen than was necessary before being cautioned about the magnesium sulphate. As the head was already on the perineum, low forceps were applied while she was relaxed. A lusty, eight pounds two-ounce, normal baby was delivered.

Conclusions—The results here approach the ideal. Without the inhalation anesthesia, the patient would probably have delivered spontaneously.

Case 5—No. 1160. January 28th, 1925. Patient para i; age 28. Russian Jewess. Normal weight about 140. Normal pregnancy. Position L.O.A. Total hours of labor was thirty-nine and a half. Morphine sulphate one-fourth grain was given by hypodermic when she had labored fifteen and a half hours. She was then dilated two centimeters. This quieted her distress for an hour and forty minutes. Her contractions became exceptionally painful. At thirty-four and a half hours, she was six and a half centimeters dilated and exhausted. Morphine one-sixth grain in an ampule of magnesium sulphate was given, followed in thirty minutes by an oil-ether enema. Two hours after the enema, dilatation was complete. When transferred to the case room, the pains were strong, every three to four minutes and lasting a minute. The anesthetist had given nitrous oxide and oxygen before learning that Gwathmey's technique had been employed. This helped to make the patient too comfortable to try and utilize her pains. As the head was resting on the perineum, a low forceps application was made. She was delivered of a normal seven pounds, three-ounce baby.

Conclusions—An earlier administration of the synergists would probably have shortened the length of labor. With less inhalation anesthesia and perhaps, with the aid of a very few minims of pituitrin, she might have delivered herself spontaneously.

Case 6—No. 1611. February 7th, 1925. Patient para i; age 21. Russian Jewess. Normal weight about 170. Normal pregnancy. Position L.O.A. Total hours of labor was forty and a half. At the twenty-sixth hour of labor she was but four and a half centimeters dilated. Pains had been only moderately severe. Morphine one sixth grain and scopolamine one hundred and fiftieth grain were given. This eased her distress and lessened the strength of the contractions for about four hours. After laboring for thirty-six hours, nine hours after having had the morphine and scopolomine,—the os was five and a half centimeters dilated. It had gained about one centimeter since administering the hypodermic. At this time morphine one-sixth grain in an ampule of magnesium sulphate was given. Fifty minutes later an oil-ether enema was given. A very noticeable relief from distress was obtained. There was a moderate decrease in the strength of the contractions for about an hour. Three hours after administering the morphine and magnesium sulphate, the dilatation was complete. The patient was transferred to the case room forty minutes before delivery. The head was not quite on the perineum but, due to the length of labor and being completely dilated, a forceps application was made. An eight pounds nine-ounce baby was born in good condition. A moderate amount of nitrous oxide, oxygen and ether was administered during the delivery.

Conclusions—The morphine, magnesium sulphate and ether did not slow up the contractions as did the morphine and scopolamine. Had the Gwathmey technique been started earlier, the total hours of labor might have been reduced.

Case 7—No. 2145. February 19th, 1925. Patient para i; age 34. American. Normal weight about 170. Normal pregnancy. Position L.O.A. Total labor was twelve hours. After nine hours of labor, the dilatation was five centimeters. The initial hypodermic of morphine one-sixth grain in an ampule of magnesium sulphate was then given. The oil-ether enema was given a half hour later at which time the os was dilated five and a half centimeters. The patient relapsed into unconsciousness after each pain but roused to work with each contraction. She could not comprehend instructions in the case room, so when the head was well on the perineum, pituitrin minims three and then minims five were given to help push the head over the perineum. Delivery of a seven pounds, eleven-ounce normal baby was effected three and a half hours after the oil-ether enema was given. The patient does not remember having been in the case room.

Conclusions—The patient was an elderly primipara. Her chances for a much longer labor were good. The rapidity with which the first stage was terminated and the freedom from pain and shock was very gratifying. It is very probable that without the aid of the synergists, labor would have been much more prolonged with a good chance that inertia would have developed.

Case 8—No. 2311. February 22nd, 1925. Patient para i; age 28. Russian Jewess. Normal weight about 150. Normal pregnancy. Position L.O.A. Total hours of labor was twenty-six and three-quarters. After having irregular pains for twelve hours, they became regular and progressively harder. Ten and three-quarters hours later the patient was very noisy and hysterical. The dilatation then was about three centimeters. Morphine sulphate one-fourth grain in an ampule of magnesium sulphate was then given. The labor continued. There was a lessened state of apprehension. One and a half hours after the hypodermic, the dilatation was five and a half centimeters. The retention enema was then given. The patient remained conscious. Two hours following the enema the contractions were every two minutes—good and firm. Asked at this time if she was having pain, she said no. Dilatation was then practically complete. The head came onto the perineum very soon thereafter. A moderate amount of nitrous oxide and oxygen was then given, after transferring her to the case room. Immediate, spontaneous birth followed an episiotomy. The baby cried promptly. The mother dozed for an hour after return to bed.

Conclusions—The results here were very satisfactory. The worst pain she remembers was before the preliminary hypodermic. The patient was rapidly becoming unmanageable before the synergists were administered. Afterwards she had no fear and relaxed completely between pains.

Case 9—No. 2590. March 1st, 1925. Patient para i; age 27, American. Normal weight about 125. Normal pregnancy. Position R.O.A. Total hours of

labor was twenty-six. After nineteen hours of labor there was no dilation and the patient was becoming hysterical. The process of effacement seemed excessively painful. After twenty-two hours of hard labor, dilatation had reached four and a half centimeters. Morphine one-eighth grain in an ampule of magnesium sulphate was given at that time followed by a cleansing enema and the oil-ether per rectum. The patient seemed totally unable to co-operate in giving the Gwathmey's technique. As a result, the bowels were not satisfactorily cleansed and a portion of the oil and ether was expelled. The patient did not at any time get complete relaxation. After an hour her pains strengthened for a short time and she dilated from four and a half centimeters to completion in two and a half hours under the synergists. With complete dilatation, inertia again returned sufficiently to indicate a low forceps operation. A lusty seven pounds, thirteen and a half-ounce, normal baby was delivered. The usual amount of nitrous oxide and oxygen was administered for the operation. From the standpoint of the observer, the results were rather disappointing. However, the patient later volunteered a great amount of gratitude for the relief obtained.

Conclusions—Inertia was well advanced when the initial hypodermic was given. The amount of morphine should have been a sixth. She should also have had about two additional ampules of magnesium sulphate an hour and a one and one-half hours respectively after the retention enema. The results then would have been more satisfactory. A forceps operation might also have been avoided.

Case 10—No. 3334. March 16th, 1925. Patient para i; age 24, American. Normal weight about 125. Normal pregnancy. Position R.O.A. Total hours of labor was twelve. After laboring for about four hours, she was nearly four centimeters dilated. Morphine one-sixth grain in an ampule of magnesium sulphate was given. Fifty minutes later the dilatation was almost five centimeters. The oil-ether enema was then given. One hour after the retention enema, the patient received a second ampule of magnesium sulphate and then three more at half hour intervals. She became slightly excited within two hours after the enema, laughing and crying alternately and complaining of feeling silly. Her pains continued but caused no apparent distress. Dilatation was complete seven hours after the initial hypodermic. She delivered spontaneously one and a half hours later. The child weighed eight pounds and eight and a half ounces. It cried at once. A small amount of ether was required as the head passed over the perineum. None was necessary for the repair of a second degree laceration. The patient later stated she was "helped."

Conclusions—The ether inhaled would have been insufficient for analgesia without the synergistic action. Though the patient was conscious when transferred to the case room, the analgesia was apparent to observers.

Case 11—No. 3329. March 16th, 1925. Patient para ii; age 20, Negress. Normal weight about 130. Normal pregnancy. Position L.O.A. Total hours of labor was eight. After six hours of labor the patient was four cenitmeters dilated. She was then given a preliminary hypodermic of morphine one-eighth grain in an ampule of magnesium sulphate. The retention enema was given thirty minutes later. She was rather difficult to control during this administration and she expelled a small portion of enema. A towel over the face for rebreathing purposes helped to compensate for the loss per rectum. Forty minutes after the enema was given, the head was on the perineum and she was transferred to the case room. Her enternal conjugate was but seventeen and a half centimeters; the baby weighed nine pounds and two and a half ounces. There was some difficulty in delivering the shoulders. The child cried promptly. The patient was exceedingly co-operative on the table and required but a few drachms of ether. She later said the most pain she had was before the medicine was given.

Conclusions—The patient was unusually apprehensive before receiving the synergists. Afterwards she gave ideal co-operation. There was no fear. Between pains she obtained complete muscular relaxation. There seemed to be a shortening of the first stage.

Case 12—No. 3335. March 17th, 1925. Patient para i; age 24, American. Normal weight about 130. Normal pregnancy. Position R.O.A. Total hours labor was eighteen. After seven hours of labor the os was four and a half centimeters dilated and morphine one-sixth grain in an ampule of magnesium sulphate was given. An hour later she was about five and a half centimeters dilated and so the oil-ether enema was administered. The enema was followed in an hour by a supplementary magnesium sulphate ampule and then two more were given at half hour intervals because of seeming restlessness between pains. Eight hours after the oil-ether enema was given, she spontaneously delivered an eight-pound, eight and a half-ounce, normal baby. Though the patient was in a state of reduced consciousness as well as in analgesia, she co-operated, while on the table, with her pains just as directed. A few drachms of ether were given as the head passed over the perineum. No ether was necessary for the repair of a second degree laceration.

Conclusion—The patient needed additional magnesium sulphate to keep her in a state of analgesia. Her relaxation between pains was very apparent. To show her vagueness of consciousness, she remembers being transferred to the case room but, though she probably received not more than six drachms of ether during delivery and none during the repair, she can remember nothing of the repair.

Case 13—No. 344. March 18, 1925. Patient para ii; age 24, Negress. Normal weight about 160. Normal pregnancy. Position L.O.A. Total hours of labor was eleven. After eight and a quarter hours of labor, morphine one-sixth grain in an ampule of magnesium sulphate was given. Dilatation was then four centimeters. An hour later the os was open five centimeters and the oil-ether enema was administered. The patient began to react to the ether ten minutes after the enema was started. She was conscious of contractions but was completely relaxed between pains. She received a supplementary ampule of magnesium sulphate a half hour after the enema was given. The head was resting on the perineum two and a quarter hours after the oil and ether had been received. A seven pounds, normal baby was delivered without any inhalation ether being used. There was no struggling; merely one outcry. The mother knew when the baby was born, asked about the sex and what time it was. A small amount of ether was used while repairing a small laceration. The repair work did not seem to cause pain but caused her to move just enough so that the operator could not be quite sure what she was going to do. The patient stated afterwards that her worst pain was before the medication was administered.

Conclusions—The time of the first stage was evidently shortened. The patient had an ideal reaction, obtaining analgesia but no loss of consciousness

Case 14—No. 4135. April 2nd, 1925. Patient para i; age 29. Russian Jewess. Normal weight about 200. Normal Pregnancy. Position L.O.A. Total hours of labor was twelve. After seven hours, active labor began and patient became somewhat noisy. At this time the os was dilated three centimeters and a half. Two hours later it had dilated to nearly five centimeters. She was very much frightened. Morphine one-sixth grain in an ampule of magnesium sulphate was given, followed an hour later by an oil-ether

enema, when six centimeters dilated. Immediately after receiving the enema, the patient went to sleep in spite of contractions. After eleven hours of labor, dilatation was complete. She had practically slept thrrough the last eight centimeters of dilatation. She delivered spontaneously a normal five pounds thirteen and a half-ounce baby. The patient did not realize that she had been out of her bed until about ten hours later when a nurse brought her baby to nurse.

Conclusions—This patient probably would not have had a long labor without the synergists. The case was very gratifying inasmuch as the picture of fright and shock was obliterated. Her incredulity was amusing when told she was a mother.

Case 15—No. 4281. April 5th, 1925. Patient para i; age 31. American. Normal weight about 140. Normal pregnancy. Position L.O.A. Total hours of labor was sixteen and a half. The cervix was fairly thick and unyielding. After eleven hours of labor, dilatation was a small four centimeters. Morphine one-sixth grain in an ampule of magnesium sulphate was given and an oil-ether enema begun an hour when dilatation had reached five and a half centimeters. A great deal of relief was obtained. There was perfect relaxation between pains. Two hours after the retention eneca the patient was completely dilated. She was taken to the case room fifty minutes before delivery. Here, by the aid of a fourth c.c. of pituitrin an dan episiotomf, a normal eight pounds three-ounce baby was spontaneously delivered. A very moderate amount of nitrous oxide with oxygen was used.

Conclusions—The patient's labor was undoubtedly terminated much earlier than would otherwise have seemed possible. There was no consciousness of pains until just before delivery in the case room. The effect of the analgesia was prolonged by the use of supplementary ampules of magnesium sulphate one hour and two hours after the enema. Had she received three ampules instead, beginning one and a half hours after the enema and given every half hour, she probably would not have awakened to pain consciousness at all.

There were fifteen more cases having the combined treatment that were very similar in all results to those just reviewed. While included in this report, we will not review them here although their case numbers and other data will be furnished to anyone interested. The more cases to whom one yave the treatment, the mores uccess was obtained in producinf the desired state of analgesia.

The following eleven cases have had variations of the prescribed technique. We cite them because the comparisons are of educational value.

Case 16.—No. 14312. November 6th, 1924. (On this date we had no magnesium sulphate ampules.) Patient pari i; age 21. American. Normal weight about 140. Normal pregnancy. Position L.O.A. Total hours in labor was nine. At the fifth hour of labor, when dilatation was three centimeters, she was given morphine one-sixth grain. This was followed by an oil-ether enema forty-five minutes later. Patient complained of burning in the rectum during the first quarter of the administration. She then became drowsy between pains. She reacted from the enema in about two hours and an hour later she was completely dilated. Her pains then became unusually severe. She was delivered spontaneously of a normal six pounds thirteen-ounce, eight months baby.

Conclusions—The lack of the magnesium sulphate was noticeable in the lack of prolongation of effect. The enema needed support with magnesium sulphate.

Case 17—No. 818. January 20th, 1925. Patient para iii; age 31. Russian Jewess. Normal weight about 170. Normal pregnancy. Position R.O.P. Total hours of labor was twenty. Both previous labors had been prolonged. The first delivery was instrumental. The second was by podalic version. Both were posterior positions also. The patient had had sodium bromide Gr. 60, and saline ℥iv per rectum when dilated four centimeters. She had then been in labor fourteen hours. The effect of this wore off in about one and a half hours and she became very apprehensive. When she had labored sixteen hours, an oil-ether enema was given without any preliminary hypodermic. This was followed at once by an ampule of magnesium sulphate. At this time the os was six centimeters dilated. Two hours later dilatation was complete and she was transferred to the case room with the head practically on the perineum. Low forceps were applied and a normal six pounds, twelve-ounce baby delivered. A much less amount of ether was required than would otherwise have been necessary. The head rotated by itself. The patient stated that she got considerable rest after the enema was given.

Conclusions—The patient would have received more relief had morphine and magnesium sulphate been given in place of the sodium bromide.

Case 18—No. 1920. February 14th, 1925. Patient para i; age 25. Jewess. Normal weight about 130. Normal pregnancy. Position R.O.A.. Total hours of labor was forty-three and a half. The patient was of a decidedly nervous temperament. After laboring thirty hours the os had dilated seven centimeters. There was a thin tough rim of cervix remaining. The patient exhibited signs of beginning inertia. Morphine one-eighth grain in an ampule of magnesium sulphate was given. This resulted in a return of cooperation and dilatation proceeded again. A female child was delivered spontaneously, one and a quarter hours following the hypodermic. About three drachms of ether by inhalation were necessary as the head passed over the perineum. The child cried promptly. The patient was slightly drowsy for an hour after returning to her room.

Conclusions—A decidedly insufficient amount of ether was inhaled to produce, by itself, a state of anesthesia, yet this patient was perfectly relaxed as the head came over the perineum. This was evidently due to the synergists.

Case 19—No. 1933. February 14th, 1925. Patient para i; age 23, Russian Jewess. Normal weight about 140. Normal pregnancy. Position L.O.P. Total hours of labor, twenty-five. After twenty-two hours of labor, dilation was seven centimeters and the vertex was still in a high mid pelvic position. The patient was very tired. Morphine one-fourth grain in an ampule of magnesium sulphate was administered. This gave considerable relief. Two hours later the vertex, which had rotated to the transverse, was showing no further signs of advancement. She was transferred to the case room and, by podalic version, an eight pounds, nine-ounce baby was delivered in good condition. Nitrous oxide and oxygen were successfully used.

Conclusions—Had this patient been given an oil-ether enema the head would probably have rotated completely and descended without the use of supplementary magnesium sulphate ampules to prolong the synergistic effect.

Case 20—No. 1928. February 15th, 1925. Patient para ii; age 25. Jewess. Normal weight about 140. Normal pregnancy. Position R.O.A. Total hours of labor was eighteen. After sixteen and a half hours of labor, the os was seven centimeters. She began to show signs of inertia. Morphine one eighth grain in an ampule of magensium sulphate was given. With this the dilatation was rapidly completed. The head was on the perineum forty minutes following the medication. One and a quarter hours after the hypodermic, a seven pounds, fifteen-ounce, normal

baby was delivered spontaneously. But six to eight drachms of ether were required for the whole delivery and repair of a small second degree laceration.

Conclusions—The patient was frightened and exhausted. The hypodermic removed the fear and fatigue. The effect of the eighth of morphine in the magnesium sulphate was as great as one would expect from a fourth of morphine alone. And a fourth of morphine could not have been given so late with much safety. Without the magnesium sulphate, much more ether would have been necessary.

Case 21—No. 2416. February 25th, 1925. Patient para i; age 20. American. Normal weight about 150. Normal pregnancy. Position L.O.A. Total hours labor was twenty-two. The patient had a low arch. External conjugate was eighteen and a fourth centimeters. She had been given morphine one sixth grain in her sixteenth hour of labor. At this time she was four centimeters dilated. She reacted well to this for an hour but her pains then became so severe that she was unruly. Morphine, one-sixth grain in an ampule of magnesium sulphate, was then given, two hours after the first hypodermic. The os was then dilated six and a half centimeters. She was soon markedly relieved. In three hours she had become ready for the case room. A seven pounds and four ounce normal baby was spontaneously delivered. A moderate amount of nitrous oxide and oxygen was administered.

Conclusions—The morphine and magnesium sulphate produced a more lasting effect than the morphine alone. The cervix continued to dilate at a faster rate under the influence of the synergists.

Case 22—No. 2626. March 2nd, 1925. Patient para i; age 29. American. Normal weight about 135. Normal pregnancy, position R.O.A. Total hours of labor was twenty. Labor was very active. The cervix was fibrous and did not readily dilate. After ten hours of active labor, morphine, one-sixth grain in an ampule of magnesium sulphate, was given. Dilatation was then six and a half centimeters during paint. The dilatation was the same three hours later when morphine one-sixth grain and scopolamine one two hundredth grain were given. Pains continued every four to two minutes, quite severe till one and a half hours before delivery, when dilatation became complete. When transferred to the case room, low mid forceps were applied because of inertia. A seven-pound, eight-ounce healthy baby was delivered.

Conclusions—This case could have been handled much more advantageously had it not been that the husband was a professional man and had many suggestions as to what should be done. Had the initial hypodermic contained one-fourth grain of morphine and had an oil-ether enema been insisted upon, there would not have been so much opportunity for suggestions by the family and the inertia would probably have been avoided.

Case 23—No. 2749. March 4th, 1925. Patient para i; age 21. Swedish. Normal weight about 120. Normal pregnancy. Position R.O.A. Total hours of labor was thirteen. Dilatation had been a very painful process. Patient began to insist that something be done. Morphine one-sixth grain in an ampule of magnesium sulphate was administered after eleven and three-quarters hours of labor. Dilatation wah then about seven centimeters. The patient relaxed between pains. Two hours after the hypodermic she was ready to be transferred to the case room, where she was spontaneously delivered of a six pounds eleven-ounce normal baby.

Conclusion—The speed of dilatation was aided and the patient given much comfort by the synergists.

Case 24—No. 3091. March 11th, 1925. Patient para i; age 25. American. Normal weight about 125. Normal pregnancy. Position L.O.A. The outlet was rather narrow but the foetus was estimated to be small Total hours of labor was twenty-six. Patient was very noisy and began to beg for relief at her seventeenth hour of labor. Morphine, one-sixth grain in an ampule of magnesium sulphate, was given. Dilatation was then six centimeters. The hypodermic only slightly dulled the pains. They were exceptionally severe and continued every three minutes as before. At the twentieth hour of labor, dalatation was seven and a half centimeters. There was further indication for relief as the contractions were exceptionally hard. The patient's discomfort was augmented by very large, prolapsing hemorrhoids. Morphine sulphate, one-fourth grain in an amyule of magnesium sulphate, was given. Satisfactory relief was obtained but the contractions did not diminish in frequency or duration. Dilatation was complete and patient ready for delivery four hours after he last administration of morphine and magnesium sulphate. Ether retardation was necessary because of some delay of the physician's arrival. The spontaneous delivery of a six-pound, eleven-ounce baby was followed by a slight tardiness on the part of the infant to breathe, necessitating artificial respiration and a few dashes of ether across the chest. Child then cried well.

Conclusions—This patient should have had morphine, one fourth grain at the first administration. This should have been followed by an oil-ether enema and two or three supplementary ampules. Even though the outlet was narrowed, the time of labor could have been materially shortened.

The tardiness of breathing in this case shows a possible danger to be considered in using the synergists. The anesthetist should always be informed when synergistic measures are employed. Unless they are always on the alert for these cases, it is an easy error to give more inhalation ether than is necessary. One must constantly keep in mind the fact that, in the presence of magnesium sulphate, less ether must be given. The effect of over etherizing by inhalation when magnesium sulphate is used, seems to be first noticed in the infant's respiratory rate.

Case 25—No. 3260. March 15th, 1925. Patient para iii; age 37. American. Normal weight about 160. Normal anti partum history. Hydramnios. Position L.O.P. Total labor was twenty-nine hours. The pains were very severe. She was given morphine, one-fourth grain, after eight hours of hard labor. At this time the os was three and a half centimeters dilated. Her pains were much less severe for four hours and then returned. After nineteen and three-quarters hours of labor, the os was dilated but four centimeters. There was evidence of early inertia. At this time she was given morphine, one-sixth grain in an ampule of magnesium sulphate. No appreciable effect was observed for an hour. Then the patient became nicely relaxed between pains and during contractions the signs of inertia disappeared. A supplementary ampule of magnesium sulphate was given one and a quarter hours after the first. Dilatation proceeded from four centimeters to completion in two and a half hours under the synergestic effect of the morphine and magnesium sulphate. It took seven additional hours for rotation to complete itself. Spontaneous delivery of a normal nine pounds and four-ounce child was effected twenty-five minutes after rotation.

Conclusions—This case was given morphine, one-fourth grain, and did nothing except rest. She was later given morphine, one-sixth grain in an ampule of magnesium sulphate, and dilated from four centimeters to completion in two and a half hours. The greater efficacy of the latter medication was most apparent to observers.

Case 26—No. 3887. March 29th, 1925. Patient para i; age 24. Danish. Normal weight about 190. Normal pregnancy. Position L.O.A. Total hours of labor was forty. The cervix was very fibrous and the perineum was very muscular. After thirty hours of good hard labor, the os persisted in remainnig at six centimeters. Morphine, one fourth grain in an ampule of magnesium sulphate, was administered. She slept four and a half hours; then labored with renewed vigor. In five hours the head was on the perineum. She was delivered of an eight pounds, twelve-ounce normal baby ten hours after the administration of the morphine and magnesium sulphate.

Conclusions—This patient was exhausted from a long labor. The morphine combined with the magnesium sulphate produced a longer effect than the morphine alone. For two hours after renewal of labor she worked hard but without as acute pain-consciousness as exhibited during the first thirty hours. This patient would have reacted better to the combined hypodermic and rectal treatment.

We are of the opinion that this method of treatment, or modifications of it, will largely supplant the use of morphine and scopolamine, chloral or bromides per rectum or other medications given for the relief of pains during labor.

It is not intended that the treatment outlined above shall or should supplant entirely the use of inhalation anesthesia. In all but the more susceptible cases, inhalation anesthesia in small quantities is indicated somewhere during the second or third stage. The usefulness of this treatment lies in the fact that relief can be given during the late first and early second stages, where heretofore, inhalation anesthesia has not been found so practical.

SUMMARY OF CONCLUSIONS

1. The morphine, magnesium sulphate and ether work synergistically to produce analgesia during the greater part of the first and second stages of labor.

2. The method shortens the first stage of labor, especially in the case of the elderly primipara with the fibrous type of cervix.

3. In the prescribed amounts, we have not demonstrated any ill-effects from the use of the synergists.

4. In the presence of magnesium sulphate, less nitrous oxide and oxygen, or ether need be given by inhalation. If the synergists are disregarded by the anesthetist, the infants' respiratory efforts may be retarded.

5. Nitrous oxide and oxygen is a much safer anesthetic to give, provided the patient has had a preliminary hypodermic of morphine and magnesium sulphate. Even though the hypodermic was administered as long as ten hours before, the effect is usually noticeable. There is not the straining or excitement and vomiting occurs less often, even after delivery.

6. Morphine and magnesium sulphate alone produce more satisfactory results than morphine and scopolamine. They are to be preferred because they tend to hasten dilatation faster than the morchine and scopolamine, while the amount of rest obtained seems about the same.

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THE DOCTOR'S LOG

WILLIAM J. STAPLETON, Jr., M. D.

DETROIT, MICHIGAN

"Ages shall honour in their hearts enshrined Thee, Southwood Smith, physician of mankind Bringer of Air, Light, Health into the Homes of the Rich and Poor, of Happiness years to come."

—Lehigh Hunt.

In Florence, at the ancient Piazza Donatello, is the old Protestant cemetery, its grounds beautifully shaded with cypress and rose trees. Walking along the narrow paths I saw where the lovely Elizabeth-Barret Browning rests and the simple marble with the name of Walter Savage Landor. Near by my attention was drawn to a small marble column on which the inscription quoted above was carved and on the other side were these words:

"To the memory of Southwood Smith, physician, who through the promotion of Sanitary Reform, the principles of which he was the first to discerne and through his philanthropic and literary efforts was distinguished as a Benefactor of mankind. Born at Martock, England, December 1, 1788. Died in Florence, December 10, 1861.

Here he rests far from his home, the man who made possible modern sanitation. Thomas Southwood Smith was an interesting character. He was not only a physician but also a preacher in the Unitarian church. Even as a medical student in Edinburgh he took charge of a congregation. About 1820 he moved to London and was appointed physician to the London Fever Hospital—his experience here was shown by the publishing of his great work—a Treatise on Fevers—which at once became the leading authority on this subject. In this book he established the direct connection between the impoverishment of the poor and endemic fever. He was considered an authority and was often consulted in fever epidemics and sanitary matters by the public authorities. His reports on quarantine 1845, cholera 1850, yellow fever 1852, and on sanitary improvements 1854, were of international importance.

FLORENCE

"Along the banks where smiling Arno sweeps
.....the veil of Heaven
in half undrawn: within the pale we stand—
dazzled and drunk with beauty."

Byron

One hardly thinks of Florence, the art center of the world, in a medical way. The city where men like Michelangelo, Dante, Savanorala, Cellini, Galileo, Giotto, Camabue, Boccaccio, Petrach, and all the others who made history and gave birth to the Renaissance lived, but little is said about it in a medical way. Yet it has a university, hospitals, clinics and doctors who are well known. By-the-way, it was in Florence that Florence Nightingale was born—thence her name. The difference in language makes it rather difficult for the visitor but it is always interesting to see the workshops of other people. So let us fare forth and visit the

HOSPITAL OF THE INNOCENTS

Here in Florence is the world famous Hospital of the Innocents, or Foundling's Hospital, founded by Leonard Aretino in the year 1421. This institution is the oldest of its kind in Europe. The parapet and facade are by the great Brunelleschi. The portico is by Francesce Della Luna and is considered the most beautiful in Europe. The frescoes of the Child and Aesculapius by Pocceti and the famous terra cotta "bambinos" in the front by Andres Della Robbia (1463) are master pieces. This institution is doing its work today and a sign printed in four languages tells when those qualified may visit the Hospital, see how the babes are cared for and look at the famous collection of portraits, bronzes, paintings, frescoes and other historical objects.

SOCIETY OF MISERICORDIA

Not far away from the Foundling's Hospital is the age old Hospital of Santa Maria Nuova, built by Portani. Here one day I saw the ancient organization known as the Misericordia going about their charitable work the same as they have done for the last seven hundred years. Its objects are to see that the poor sick are taken to the Hospital and go on errands of mercy to the needy poor. This society has had a most eventful history which makes interesting reading. They wear black gowns and hoods and no one knows whether it is a prince or poor man who is doing a good act. They exemplify the saying of Jesus Christ, "As often as ye do it to one of these, my brethren, ye do it unto me." The Society was founded by a pious Florentine as a protest against the too prevalent practice of taking the Lord's name in vain.

HOSPITAL AMERIGO VESPUCCI

At the rear of our hotel was a busy street called the Via Borgognisanti. One day I heard the noise of an ambulance and looking out of the window saw it stop at a building a short distance down the street and a patient carried in. Later I investigated and found the building was the Hospital Amerigo Vespucci, erected in 1400 on the ground formerly occupied by the old homes of the Vespucci family where the famous navigator, who gave his name to our country was born. The family gave the funds necessary for the building of the hospital and it has been in use ever since—ninety-two years before another Italian, Columbus, came to our shores.

Going in I noticed first the tablet on the wall telling about the Vespucci family. Then I climbed the great central staircase, there being no elevator, and looked about the second floor. On the front side were large wards and around the court the semi-private and private rooms. There was a simple operating room, laboratory and X-ray equipment. It is a semi-public institution with no-pay beds for the indigent. The courtyard was bright with flowers and was a pleasant place for the convalescents to rest.

HOSPITAL BONIFAZIO

The history of syphilis is always interesting and we find a bit of it here in this old hospital, founded in 1376 by Bonifazio Lupi, Marquis of Sargon, who was captain of the people of Florence. Later the Hospital for Incurables was joined to it and in 1552 it was opened to receive patients with syphilis, which had been spread in Florence in 1492 by the troops of Charles VIII on their return from Naples. This hospital has a lovely little church attached to it called "St. Anna."

Florence being a military center we find the

Military Hospital in the old Monastery of St. Agatha, built in 1185. The dates given show the ages of the hospitals which are still doing business in the year 1925.

HOSPITAL SANTA NUOVA

In this hospital, the oldest in Florence, we have a goodly tale. In the year 1288—Monna (abbreviation of Madonna-Mistress) Tessa, governess in the house of Folia Portinari, father of Dante's Beatrice, gave her master the idea of founding an asylum for the poor. In 1334 the convent of S. Equide was bought and the hospital transferred there. Later in 1574, the building was enlarged and the portico and facade facing the square was added and since then other buildings have been erected until now the hospital consists of a large number of units with separate departments devoted to physiology, pathology, etc., where teaching is carried on. There is also a splendid library. In the old church and convent portions are many fine works of art. In our own country we do not expect to see famous paintings, sculpture and other objects of art in our hospitals but we find them here in Florence.

Beatrice—Dante's love—was greatly interested in the hospital. She was known all over Florence for her charitable works. Dante tells us "She came into such favor with all men that when she passed anywhere folks ran to behold her, etc." You may read the whole of it yourself if you wish in his life—a poignant biography.

Much could be written about Florence in a medical way. For example, it is claimed that spectacles were invented by a Florentine named Salvio de Armato in the 13th century. In fact, the medical history of Italy itself is wonderful. The Surgeon's House in Pompeii with its collection of instruments, many of which differ but little from those in use today. The life and work of Michelangelo and Leonarda da Vinci in the anatomical way—the History of Syphilis by Fracostorius. Speaking of Leonarda da Vinci, it is said he started dissecting in order to improve his art. His interest in anatomy soon exceeded his artistic work and his anatomical note books show him to be one of the greatest biological investigators of all times. He was hundreds of years ahead of his time. These books have only recently been published —had they been produced during his life time Anatomy would have advanced by leaps and bounds. Leonarda is said to have been one of the first to draw correct figures of the skeleton. In the work on muscles he excels because of his artistic training.

A sculpture of interest to physicians is the "Doctor's Diagnosis," a medallion on the Campanile, said to be by Giotto, showing the physician in his office surrounded by his jars and ampulla, holding in his hand a glass jar which evidently contains urine. There is a very wise look on his face as he holds the flask high in the air and examines it with an air of wisdom. In the entrance to the Uffizi gallery there is a fine monument to Francesco Ridi, who while a physician, was more noted as a naturalist. He gave the death blow to the theory of spontaneous generation by showing that when maggots developed in putrifying organic matter, it was because eggs had been laid there by living creatures. His statue shows him standing with the Aesculapian staff with the serpent coiled about it but also with a lyre—this indicates he was also a letterateur as well as physician.

PISA

In Pisa—the town of the Leaning Tower and Galileo's great experiment, we find in the famous Campo Santo, a wonderful monument by Thorwaldsen, the great Danish sculptor of Berlinghieri, who was a famous eye specialist of the 19th century. This monument is one of the most interesting sights in a world famous cemetery.

Now we must leave Italy with many regrets and plan to come again.

PARIS

Have you read Clara E. Laughlin's book, entitled "So you are going to Paris?" If not, I am sure you will find it most worth while. In this book she makes reference to many things of interest to physicians. By all means read it before you visit that most delightful of all great cities.

The hospitals of Paris are many and are well worth visiting, not only to see the work done but also to visit institutions where so much medical history has been made. The French have always been great clinical teachers and many of the members of the Faculty have been men of most delightful character whose life history is, to say the least, thrilling. The names of Pasteur, Claude Bernard, Brown Sequard, Dupuytren, Charcot, and others show what has proceeded out of this city and country. Many of the hospitals are very old and lacking in some of the many things we consider essential but you will be surprised at the work done. Now many of them are being rebuilt and brought up to date.

CHARCOT AND SALPETRIERE

Take the Hospital de la Salpetriere, so-called because there was once an arsenal and gunpowder magazine there under the reign of Louis VIII. Louis XIV erected new buildings including a church and the place was made into a pauper and insane asylum. The stories told of the treatment of the insane at that period

seem incredible compared with the methods now in use. In 1678 Louis XIV had a special building constructed for "Undisciplined and incorrigible women and girls." This place has been the scene in several stories. "Manon Lescant" by Abbe Prevost has a scene laid here and one of the courts is named Cour de Manon. One of the characters in the famous diamond necklace story of Marie Antoinette was imprisoned here.

Our interest however lies in the great work done by Doctor Philip Pinel who was the first man to treat insane people like human beings instead of animals. In this old hospital they were shackled with chains, neglected, abused and often starved. He changed all this and is regarded as the pioneer in this work.

After Pinel comes Charcot who was the greatest man ever connected with this ancient hospital. For over thirty years, Jean-Martin Charcot, labored here on the great epoch making work. Charcot was born in Paris November 29, 1825, served as interne in the hospital in 1848, Doctor of Medicine in 1853, he was appointed the same year Rayer's Chief of Clinic. He then became attending physician to the Paris hospitals in 1856, and adjunct professor at the faculty in 1860. It was in 1862 that he entered the medical service of the Salpetriere where he served the rest of his life. It was at Salpetriere that Charcot studied the affections of the nervous system. He was a most ingenious person and constructed apparatus to help in his experimental work, formed a pathological museum and a research laboratory for photography and electrotherapy.

Charcot was a great teacher and his lectures were always followed with great attention. Students from all parts of the world came to his clinics and lectures. One writer says, "Charcot had an awe-inspiring presence, an air of distinction and a manly vigor. Having a clear cut profile, he reminded one somewhat of Napoleon. With clear voice he spoke fluently but without effort for he considered the systematic association of ideas of more importance than eloquence. Charcot was above all the head of a particular school. So instructive, so replete with new ideas were his lectures, that he was soon surrounded by a group of faithful students who soon grew in numbers. Thus was formed the Ecole de la Salpetriere, creator of eminent neurologists, for many of Charcot's pupils have become celebrated teachers. While he was in the height of his wonderful career, he made a trip to the Morvan, where he died suddenly from an attack of angina pectoris.

In the library attached to the hospital one can see his original drawings and notes on hysteria, epilepsy and allied conditions. I was surprised that better care had not been given to these relics of a great physician. The library is complete as he left it and is kept locked but the original drawings are rolled up and placed in a drawer. Charcot was the founder of our modern school in suggestive therapeutics and nervous diseases. A great benefactor to mankind.

HOSPITAL TARNIER

Over in another part of the city is a different sort of a hospital, the Hospital de la Clinique Tarnier, named after that great master of obstetrics. Here one finds a large clinic devoted to mothers and babes. On the side of the building facing two streets is a marble sculpture showing Tarnier standing by the bedside of a mother. The babe is in a basket at the foot of the bed as is the custom in the French maternity hospitals. The master stands there with a smile on his face, the mother looking up at him with a face full of love and confidence and underneath is this inscription.

TARNIER 1828-1897

"Au Maitre qui conserva su vie aux meres et aux Enfants.
Les collegues ses eleves se amnis Ses Admirataves."

What more can be said of a man than "He consecrated his life to the Mothers and Babes."

In this clinic there is a complete moving picture outfit. Through the courtesy of Doctor Jean De Manet, chief of the surgical division, I was shown about. The doctor is not only an obstetrician and gynecologist but an expert photographer as well. He showed me some of his slides of microscopical sections and they were fine. He was a most delightful young man who spoke excellent English as a result of his service in the English Army during the Great War. In this hospital they use condensed milk exclusively in feeding babes who require artificial feeding—no wet nurses. A well known brand of Swiss condensed milk is used as they consider the Swiss milk the best.

For the luetic cases they are using intromuscolar shots of bismuth and quinine—a preparation known as "Quinby," a proprietary product apparently. An ampule of 3 c.c. twice a week—a course of from eight to twelve injections being used—guided by Wasserman tests. For routine examination per rectum they use a two fingered outfit—as if you took two fingers off a rubber glove and left a little rubber to act as a shield. Dry sterilization is used and the wooden stethoscope is preferred instead of the type used by us.

HOSPITAL LAENNEC

Back behind the Bon-Marche, one of the great French department stores, is the Hospital Laennec, or Home of the Incurables. This is a very old Hospital but is being restored and in the rear several new wards are being erected. In the entrance court is a bust of

Trugot 1727-1784, and to an American this wording on the pedistal appeals

Principal Subscriber
Lt. Colonel H. A. Dupont de Nemour
United States Senator

The patients in this hospital wear long blue bath robes when out of doors. The name of the hospital recalls that brilliant young French clinician, Rene-Theopile Hyacinthe Laennec, who made himself one of the leading lights in all the history of medicine by his invention of the stethoscope in 1819 and by the publication of his great work entitled "Traite de l'auscultation mediate in 1819." Laennec was the first to place the diagnosis of heart and lung disease on a sound basis. His life story is of great interest. In this hospital Marie Jean Simon, one of the guardians of the Dauphine, spent her last days. As did Rosalie Lamorhere, the girl who served Marie Antionette while she was a prisoner in the Conciergene awaiting the trial which ended at the guillotine.

In many of the hospitals I saw a small cafe where meals could be obtained by visitors and a little shop where wine and delicacies could be bought for the patients. In all of the hospitals beside the sign for "quiet" were these words: "Do not waste the bread."

THE AMERICAN HOSPITAL

I must not forget to say a word about the American hospital of Paris. This is the only permanent hospital in Europe for Americans exclusively. It is situated just outside Paris at Neully-sur-Seine. This hospital is doing a wonderful work and unless one has had personal experience with sickness in a foreign city they cannot realize what a blessing this is to Americans. To be under the care of American doctors and nurses is a thing to be thankful for. The hospital is now having a campaign to raise money for further expansion and any subscriptions will be greatly appreciated.

ACADEMY OF MEDICINE

Next to the world renowned Beaux Arts on the Rue Bonaparte (a fascinating old street filled with little shops selling all sorts of prints, books, etc.) and near by the Charity hospital —still in use—founded by Marie de Medici— is the Academy of Medicine. In the entrance hall are life-sized statues of the Baron Larrey —Napoleon's chief of medicine and the first man to use an ambulance in warfare, Broca, Nelaton, Pean, Roger, and others of the famous French medicine men. This is what appeals to me, the keeping green in our memory of the men who have made possible the present in medicine. Paris is full of these mementoes—the hospitals are named after physicians. Besides those I have mentioned there is the Hospital Necher, Lariboisiere, Tenon, Bichat, Broussan's, Broca, Claude Bernard, and Bandelocue. Streets are named after Ambroise Pare, Rue Bichot, Boulevard de l' Hospital and Rue Medecin. In every hospital you find statues and casts of the men who labored there.

Back to the Academy of Medicine for a moment. There is a large meeting room with a desk for each member, a rostum, lantern and etc.,—a small library and all convenience for a medical society are contained in this fine building. Any medical society would be proud in the possession of such a completely equipped institution.

L'ECOLE DE MEDECIN

On the outside of one of the buildings of the School of Medicine is a tablet in memory of the 1800 doctors killed in the Great War. The school consists of a group of buildings on both sides of the Rue de L'Ecole de Medicine. Here in one of the buildings is found the Secretary of the "Association Pour Les Relations Medicalis Avec L'Estrangers," or in plain English the information bureau for doctors who wish to take up medical work in paris. Here one obtains, through the young lady secretary, who speaks excellent English, all necessary information for which there is no charge. She gives you a map of Paris with all the hospitals marked on it with directions as to what "Metro" or underground train to take. Schedules of clinics and work are also furnished.

POST-GRADUATE WORK IN PARIS

There are courses without number in every branch of medicine, surgery and the specialties. The prices are wonderfully low, due of course to the present rate of exchange. Five to ten dollars will pay for a course in almost any subject. At the same time one can take courses in the Sorbonne at very low rates. Anyone who has a working knowledge of French and wants to do Post-graduate work in Europe should by no means neglect Paris. Living can be had most reasonable and if one has extra time it need not hang heavily as there are all sorts of museums, exhibitions, and of course music and other form of diversion if one craves them. Speaking of museums, there is the Musee Orfilia with its comparative anatomy and the Musee Dupuytien, named after that master of surgery, housed in the ancient refrectory of the Cordeliers. These were not doctors but Francisian monks and their story invites further study. The ground on which the school of Medicine stands was given to these monks by Saint Louis—but enough—here in this ancient building is a large collection representing many different lesions which you may see with your own eyes.

MUSEE de l'HOSPITAL SAINT LOUIS

One of the most complete collections of its kind is in the Musee de l'hospital Saint Louis where one views the famous Fournier's collection of skin and syphilitic lesions almost lifelike in wax. This collection is of especial interest to all dermatologists for here are examples of every known skin disease. In this museum are also housed the collection of embryologic malformations collected by Dr. Parrot and the specimens of tumors of the bones and joints made by Peans. A place to spend hours and days in. In the Hospital due Vol-de-Grace is a very important collection of the surgery of the late war.

LIBRARY OF THE FACULTY

The "Bibiliothque de la Faculte" is a general reference library in medicine—there are special libraries at the Salpetriere containing, as mentioned, Charcot's collection; at the Hotel Dieu is the surgical library and a special collection by Prof. Hartman on opthalmology.

MEDICAL MONUMENTS

Among the monuments in Paris of medical interest is the one to Pasteur in the Place de Breteuil. This is about twenty feet in height and shows Pasteur seated on the top and below are life-size figures symbolic of his great work. One shows a shepherd with his flock and another a farmer with his steers, referring to Pasteur's work in cattle disease. The front shows a mother with her daughter in her arms with a figure of Death bent down moving away. The idea being that Pasteur's aid has driven death away. A wonderful tribute to a great man. I finish these remarks about Pasteur with this quotation:

Pastuer's scientific life had an admirable unity; it was the logical and harmonious development of one and the same thought. Of course he did not know when he made his first studies in crystallography that he would end by discovering a means of preventing rabies. But neither did Christopher Columbus know when he set forth, that he would discover America. He only divined that by going in the same direction he would discover something new. So with Pasteur.—Emile Declaux.

Back of the Madeleine at number 17 Boulevard de la Madeleine, lived that great man Lavoisier and here you may see a statue of the great chemist and physicist, the man who made the original experiments in the estimation of the respiratory metabolism of man. He was a distinguished teacher and had many famous men as his pupils. He was condemned by the Tribunal of the Revolution and they cut off his head as they did to many other of the best blood of France.

INSTITUTE MEDICO-LEGALE

One of the sights of Paris of old was the Morgue back of Notre Dame. The little red building is now gone and we find the Institute Medico-Legale at the Place Mayas taking its place. This new institution is very complete—there is a large refrigerating plant, the bodies are not exposed to view as formerly but are brought into a room with glass front for identification—no more morbid curiosity. There is a large amphitheater for teaching purposes and several small autopsy rooms for special work. Upstairs are chapels and offices while the floor above has the laboratories for Toxicology and Medico-Legal Research. To visit the Morgue is no easy task. One must obtain an order from the Prefecture of Police and this office will only issue a permit upon receipt of a letter from the American Ambassador. This is easily obtained by means of a personal application with your passport to the chancellery of the American embassy at number 5 Rue de Chaillot between 10:00 a. m. and 12:30 p. m. It is wise at the same time to get a letter for a permit to visit the various museums, libraries, etc. In this way one can save a lot of time as many of these places are closed to the ordinary visitor. This permit gives one an entirely different standing, especially if one's French is not what it should be. It is a liberal education to browse around the hospitals whose very names are full of such glorious memories. While it is not absolutely necessary to have a permit to visit many of the hospitals it is better to obtain an ofofficial permit by presenting oneself at the office of the Administration Generale de l'Assistance Publique a Paris at number 3 Avenue Victoria. Here you will be given a little booklet authorizing you to visit all the hospitals, their addresses, together with a word describing the hospital, whether general or special, and the type—maternity, children, etc. With this in hand you will have no trouble. Do not go before 9:00 a. m.,—the hours are usually 9-12 m. You waste your time between 12-2 p. m. Go and take lunch at some outdoor cafe and enjoy the sights as you eat. Paris is a wonderful city for the study of medicine but one should have a knowledge of French in order to benefit the most. No one as far as I can find has written the story of Paris from the medical standpoint. For the man who has the time and ability there is a fascinating story to be told about Paris and her medical men—her hospitals and clinics. Just for example—a sad one—do you know that Marat, that monster of the Revolution, was educated as a physician? It is surprising the number of men who have made history of various kinds have been educated in medical schools.

Now we must bid "Adieu" to Paris and hasten on.

FREIBURG

"Z' Freiburg in der Stadt
Super isch's und glatt
Riehe Herre Geld and Guet
Jungfrau wie Milch unt Bluch
Z' Freiburg in der Stadt"

Old Poem.

Freiburg, the home of the Dammerschlaff, is a delightful little university town in Germany about an hour's ride from Basel, Switzerland. In the entrance hall of the Frauen Klinik is a bust of Hegar with this wording:

Director of the Frauenklinik
1864-1904
Presented by his Friends.

Hegar was one of the pioneer workers in pelvic surgery and a teacher for many years.

The present chief of the clinic is Prof. E. Opitz, who is still carrying on the work. While there the Professor said, "We even have American women come here for their confinements." This was said to me as he ushered a lady out of his consultation room. Guided by one of his assistants I was shown through the clinic. The arrangements of double padded doors and windows in order to obtain quiet and the other methods used are all too well known to require detailed explanation here. In conversation with the Resident I was told they used smaller doses of morphine and scopalin than formerly. A new preparation called Gynergan-Sandoz is used instead of Ergot. The record sheet used is most complete. The clinic is situated on the university district. The idea of having all the medical activities grouped is a fine one as it saves time. Freiburg should be a very nice place to work in, beautifully situated, with fine shops and good coffee houses where you may also listen to good music between clinics, makes one think of the stories of student days. At least as the little poem at the beginning indicates.

"Z' Freiburg in der Stadt." '

BRUGES

The quaint old hospital of St. John, built in the XII Century, in the ancient city of Bruges, famous for its bridges, canals and Carillions, has been very little altered since and is still in use as a general hospital. Here in the roof you can see the great Red Cross painted to warn bombing planes of the enemy in the war. The principal reasons for visiting this hospital are two, first to see one of the few remaining examples of a medieval hospital, and secondly to view the famous paintings by the painter Memling—reputed to be the most wonderful of their kind in the world of art. The pictures are exquisite little gems painted on a large cabinet and show the Adoration of the Magi, the Birth of Christ, the Escape into Egypt, and other Biblical scenes. People come from all over the world to view these masterpieces. In the pharmacy attached to the hospital are some queer old relics of old time druy making. One doesn't ordinarily think of a hospital as an art museum but here is the combination.

BERNE

The Swiss capitol is a pleasant town resting on the high plateau between the Jura and the Alps. It is not too large but being the capitol it has all the advantages of a large city without its disadvantages. Berne has many hospitals and clinics, celebrated ones, which are known around the world. Institutions which have had their share in spreading Berne's international fame as a surgical and otherwise curative center. There is the great Insel hospital with its many pavilions in the western part of the town. Upon the hill is the university, the center of the student life of Berne. In front of the university is a bronze statue of its founder —Albrecht de Haller, the greatest physiologist of his age. His life is unique one. Not only was he a great physician but a master poet as well. His poem "Die Alpen" published in 1728 was the first to draw attention to the beauties of the Alps. Garrison, in his history of medicine, which in my humble opinion is the best book on medical history in English, tells the story of this physician, physiologist, anatomist, and botanist. He made many of the discoveries which are now classified as new. Read the article and you will be well paid as you will by owning this book and dipping in it anywhere. Berne is the home of Kocher, the thyroid doctor, who does his work in the Kocher Spital, a private hospital. Among the other hospitals are the Jermer, City hospital, Woman's hospital, the Ziegler and Bouriosti. There are many fine looking private hospitals or clinics like the Salem, Linderhof, Feidigy and Victoria. All these are well equipped for the care of the sick.

Berne is a mecca for the sick not only of Switzerland but of people from the United States, England and other countries. The Swiss have developed all the possibilities of their little country in every way. The treatment of the sick is not the least of these as one can notice by the amount of attention given to the various sanitoria. One can get almost any kind of climate, sunshine, water, altitude, or what you will in the line of natural therapeutic measure. One will find excellent hotels of all grades for the Swiss are the world's most noted hotel keepers. Near the little town of Leysin, Dr. Rollier does his marvelous work on tuberculosis, a place much visited by the sick and physicians interested in this work

PHYSICAL THERAPY IN EUROPE

I was struck by the fact that in England, France, Germany, Austria, Switzerland, and

Italy; how much more attention is given to the various "cures." You read in the society columns that "Lord So and So" is taking the cure at Harrongate or Leamington in England, at Evian or Vichy in France, at Baden-Baden or Nauheim in Germany, Bad-Aussee in Austria, or at some "spa" in Italy or Switzerland. These places have their regular season and it is almost impossible to obtain accommodations at the height.

They are all run on the same general lines—some sort of water—sulphur, iron, alkaline, radio-active, what you will, which the people drink and bathe in—with massage, diet, exercise. There is always a park with its Kursaal where the excellent band plays. Then there is the opera, theater, gambling, dancing, golfing, tennis and horseback riding to fit in between the taking of the waters.

Everything that human mind can devise to assist in passing the time away is at hand.

All this of course must be paid for, a tax is levied on each visitor, a very small amount, but sufficient to pay for the music and upkeep of the streets and other public necessities. The Kursaal is the center of the social activities and one can have a good time just watching the people. I wonder why the people who are in the same business in our country do not study the psychology of this cure resort and apply it here. I am thinking particularly of our Mt. Clemens. What a dreary hole to stay in while taking the baths. It would mean money in their pockets and that ought to be of interest to the owners of the bath establishments.

There are physicians in all these cure towns, well educated men who are expert in the use of hydotherapeutic measures, diet, massage, electro-therapeutics, whose whole work is along these lines. They use very little else and get good results. Whether it is the change of scene, diet, drinking water and paying for it, stopping the alcohol, the graduated walks in the park and on the mountain sides, anyway they go away feeling better and return again the next year.

The uses of the various electrical forms of energy like the ultra-violet, galvanic current and diathermy, together with the natural sunlight is being used much more extensively than in this country. Those of you who have listened to Doctor Crumberbatch will realize how much this form is being used in England. Cambridge now offers a six month's course in radiology and physiotherapy with a diploma.

In France at the Salpetriere one can obtain opportunity for study along this line.

Vienna and Berlin use hydrotherapy and radium and much is made of the various forms of inhalations where pine and other oils are used in the treatment of the various pulmonary conditions. The great man in Berlin is Nagelschmidt who was the originator of the word "diathermy."

LONDON

John Gay, who wrote that delightful, whimsical "Beggar's Opera," is the author of a little book entitled "Trivia," or "The art of Walking the Streets of London." It is a capital book to use as a guide in seeking out odd corners and there is no city so suited for this purpose as London. Dickens loved to do it. The streets of great cities have always had a fascination for poets and writers, from the Psalmist who walked about Zion telling about the towers thereof, to the mystic who mused on the domes and temples of London asleep in the morning light. Gay also wrote a poem describing the ravages of lues which is a classic of its type. Speaking of books have you read Lytton Strachey's book entitled "Eminent Victorians?" If not get it and read the life of Florence Nightingale, "The Lady of the Lamp," and get an entirely new view of this great woman. With her life in mind I made a pilgrimage to 10 South Street, Park Lane, where the "Lady of the Crimea," lived and died. On the front of the house is a tablet inscribed:

Florence Nightingale
Born 1820 Died 1920
Lived Here.

Strachey's book gives a most penetrating look into one of the famous characters of history. She was not only the founder of modern nursing but also the one who brought about the first real medical department in the British Army. Not a medical or military man but a woman was the founder of the modern civil and military hospital. Read the battles she had with the red tape of the English army and the struggles with the medical heads. It is enough to make the Gods weep. The author is none too kind with her but nevertheless she was a great woman in her own particular line even if the searchlight of the writer reveals glimpses of other phases of her manifold character. At St. Thomas hospital she opened in 1860 the Nightingale Training School for Nurses, thus becoming the founder of modern nursing. Her great book was published in 1859, entitled "Notes of hospital construction and management. Today there is no great hospital tht does not show the impress of her mind. In the Nurses Home at St. Thomas Hospital is the room she used and many interesting mementoes of her still remain there. This naturally makes the old hospital doubly interesting.

ST. THOMAS HOSPITAL AND MEDICAL SCHOOL

No one knows when the first hospital of St. Thomas was built. Probably along in 1200. This was afterwards destroyed by fire. The

hospital went through many changes until it reached the present condition which it occupies on the south bank of the river, facing the Houses of Parliament, while its opposite side looks toward one of the poorest districts of London. The hospital was one of the first to be built in accordance with modern ideas, a series of blocks separate but each connected by corridors. The capacity is 632 beds. In the hospital I saw the well known London surgeon, Mr. Mitchiner, operate. The operator and nurses wear short rubber boots because the floor is wet from the frequent use of water being used in rinsing off the rubber gloves. In the clinic room adjoining the hospital is the following notice which might with advantage be placed in our own hospitals especially those doing a large amount of charity work:

NOTICE

The Governors reserve to themselves in the interest of the Public, and as one of the conditions of admission to this Hospital, the right of causing a Post-Mortem examination to be made in the case of every patient who dies in the Hospital for the purpose of accurately determining the cause of death. In event of relatives being opposed they will be seen by the Steward who shall submit their objection to the Resident Medical Officer and if he thinks there is no urgent necessity it may be dispensed with.

The medical school is one of the foremost in London and has many students. Resident positions are eagerly looked for by the graduate.

London is coming to be one of the great post-graduate centers of the world, especially to the English speaking races. The great difficulty as has been stated in France, Germany, Austria and Italy, is the one of language. In London this does not exist.

Through the Fellowship of Medicine and the Post-Graduate Medical Association located at 1 Wimpole Street, in the building of the Royal Society of Medicine, one can obtain any desired post-graduate work in the London hospitals and medical schools. A letter addressed to the above number will get you the program and for ten shillings a year one receives the monthly bulletin, this including admission to certain lectures without further charge.

London like Paris is a delightful place to stroll about. Go into the Royal College of Physicians and see the many fine oil paintings of distinguished English men of medicine, see the old amphitheater where epoch making talks have been given and browse in the famous library with its wealth of old tomes. Meet the secretary of the college, Mr. H. W. Barlow, a delightful chap, who will show you his collection of book plates of doctors. If you have one of your own he will be glad to add it to his collectionwhich is to be placed in the library for future generations to look at.

A walk through Westminster Abbey shows thatthe physicians are not forgotten. Lister, Braillie, Simpson, and others of our craft are to be found in this holy place.

Another sight of interest is the fine building just opened by the British Medical association. The dedication was honored by the presence of King and Queen and marks a new era in British medicine.

Nearby Dickens' Old Curiosity Shop is the Royal College of Surgeons with its famous Hunterian collection where hours may be spent in a most profitable manner. There are so many places of medical interest that I can only offer you the above few as suggestions.

SALESBURG

On an ancient building near the bridge in Salzburg, Austria, is the following inscription:

Theophrastus Paracelsus get zu Einsiadeln
1493 liebete in diesin Hause-starb 1541
Theophrastus von Hohenhelm gemant
Paracelsus
der in diesen Hause 1540-1541
Zum Gedachinus
Die Deutsche Gesellshaft fur Geschiete
Der Medizin und des Naturvoissenoschaft.
Liodhoff.

Here in the Austrian Tyrol lived for a while in his strange career the founder of chemical pharmacology and therapeutics. He led a life that was most fascinating and which would make a good hero for one of Locke's novels. A swaggering, gypsy type, he mingled with all sorts of people and learnt something from each one. Browning made him the hero of his great poem, "Paracelsus." He was one of the first to throw off the shackles of Galen. Was the first to write on miner's disease, and as Garrison states was the only aseptist between Mondeville and Lister. He made opium, mercury, and many other drugs. It was at Salzburg and roundabout that he made his original studies in cretinism and endemic goitre.

In an old "Gasthaus" called the Traunmuhle near Bad-Aussee, owned by my friend Herr Haas, I found two pictures painted on metal called the "Goitre man and his wife." Both are painted with the typical goitre of the region. The upper garments are loose about the neck so that the goitre hangs down free from pressure.

The region here is called the Salzkammergut or Salt mine country and is not only a goitre centerbut has many remains of the ancient Celts found at Hallstatt. Here is a little museum where you may see the remains of the Celts who lived in houses built on piles in the Hollstatter Sea.

CONCLUSION

Why doesn't some one write a "Guide Book for Doctors." We have guide books, red and blue, and of all kinds for the various great and small cities, the museum and art galleries. With the single exception of Vienna where the American Medical association of Wien has a "blue book" for American students I know of no book along this line. By the way, American students properly vouched for by the American Medical Association, will have 50 per cent of their visa fee deducted by the Austrian government. There is a wealth of material of course in Europe—fine schools, hospitals, clinics, and great teachers. There is the glamour of distance but there are difficulties, the greatest of which to most Americans is that of language. We know English but as a rule our French and German suffers from a lack of practice.

So while I acknowledge most freely all the things mentioned I feel that we in America should develop our own resources along this line to a greater extent. Some good work is being done but there are not yet the opportunities to take courses both long and short of all kinds that are so freely offered abroad. The richest country in the world, institutions and men of ability who will I hope take the opportunity to create in America a Mecca for medical men.

USEFUL ADDRESSES

London—1 Wimpole Street, Fellowship of Medicine.

Paris—12 Rue de L'Ecole De Medicin, Information bureau.

Vienna—IX Spitalgasse 21. American Medical Association.

CONGENITAL HEART DISEASE, REPORT OF A CASE WITH UNUSUAL COMPLICATIONS

MILTON S. FELDMAN, M. D.
DETROIT, MICHIGAN

The relative infrequency with which congenital cardiac disease appears after the adolescent age makes these cases of clinical interest though less important than the more amendable forms of acquired cardiac affections. Incompatabilities with life, primary or secondary complications accounts for the early high mortality rate in the congenital heart cases—although at times one meets an individual who has lived beyond the average span of life none the worse for the presence of some congenital anomaly.

This case is reported because of unusual complications occuring in a case of "Morbus Caerules" (Blue Baby) who has reached the age of 19.

I was first called to see the case on October 6 after she had expectorated about ten ounces of bright blood following a short coughing spell. This history is interesting and is as follows:

Family History: Mother and father living and well, one brother and one sister living and well.

There is no history of a similar complaint in the family either on the paternal or maternal side.

Past History: She is the first child of three children and was born normal delivery at ten lunar months. At birth she was immediately recognized by the attending obstetrician as a "blue baby." The right recumbant position had no effect and two months later an interview with another physician firmly fixed the diagnosis of congenital heart disease.

Until the age of four she enjoyed relative good health only showing a cyanotic tinge of her ears, lips, eye lids, nose, fingers and toes. Occasionally she became dyspenic on exposure to the cold. At the age of four she contracted small pox but made an uneventful recovery. At the age of seven she had measles and likewise recovered without any complications.

At the age of eight she contracted diphtheria and seemingly on the road to recovery she developed a punctate rash ten days after the diagnosis of diphtheria was made. This rash was diagnosed as scarlet fever. A right sided otitis media also developed and was followed by delerium. In view of her congenital heart her condition was considered grave.

After several days of marked excitement she became quiet. A physical examination revealed a flaccid paralysis of the extremeties and also the vocal cords. A diagnosis of post diphtheritic paralysis was made.

In the course of the next ten weeks she gradually began to improve. Her voice returned and also some motion in her left arm and leg. She never completely recovered. A residual paralysis on her right side in the form of wrist drop and also toe drop is present today. Her left side is well. Her voice also returned without defect.

Until the age of sixteen she enjoyed fairly good health and then suddenly she began to have purposeless movements which was diagnosed as chorea. She did not recover from this until about six months ago —two years after the beginning of the attack.

Menstrual History: Menses began at the age of fifteen, irregular, lasting about three weeks and often returning after a rest period of two or three days. There is no history of clots, Leucorrhea dysmenorrhea, headache or backache.

General History: She occasionally suffers from colds and tonsilitis and also of constipation. There has been no loss of weight, night sweats or cough. No nocturia or frequency.

Present Illness: Following a coughing spell she expectorated some blood. She denies having coughed until the present spell which brought on the hemoptosis.

Physical Examination: The patient was very anxious and restless. She was coughing and expectorating bright blood. Her entire body was of a cyanotic tinge, which was marked on the lips, eye brow, nose, fingers, ears and toes. Her apparent weight was about eighty-five pounds. Her extremities showed evidence of atrophy due to disuse. Her right forearm showed a wrist drop and she held her fingers in the pillroll position. Both her hands showed marked clubbing of the fingers. Her right lower extremity was shorter and thinner than the left with free motion in all directions. Her eyes reacted to light and accommodation extra occular movements were normal.

Nose—Negative.
Sinusis—Negative.
Ears—Negative. No mastoid tenderness.
Mouth—Tonsils 4 plus, teeth fair shape.

The laryngeal mirror showed blood coming from the larynx.

No percussion of the chest was attempted because of the hemorrhage.

Auscultation revealed a few gurgling rales in the upper left lung at the level of the 2nd intercostal space where apparently the blood was coming from.

Her heart apex was in the sixth interspace at the anterior axillary border and at a later date the right border was percussed two finger-breadths to the right of the sternal margin. The apex beat was rather diffuse. The pulmonic second sound was accentuated. A systolic murmur could be heard best over an area which corresponded to the center of the auricles as outlined by percussion topography. The murmur was switchy in character and extended into diastole. A diagnosis of patent foramen ovale was made.

Abdomen: The liver just palpable at the rib margin, the spleen was not felt. There were no areas of tenderness nor masses felt in the abdomen. The right leg showed Babinsky and Oppenheim present but no ankle Klonus. The leg was about one and one half inches shorter than her left and the foot showed a talipes cavus with some equinovarus.

The patient was immediately given one-half grain of morphine and received one-quarter grain morphine every two hours or as necessary to keep her quiet. An ice bag was advised to upper left chest and only cold drinks permitted. On the following day she lost about eight ounces more of blood and on the third day she only occasionally coughed up a clot of blood. Dr. Wm. H. Gordon in consultation advised continuation of the same treatment.

On the evening of the third day she developed a sex psychosis. She kept on saying "well bring me a man." Her temperature was 99 degrees. She struggled to get out of bed but was finally quieted by a hypodermic of morphine and hyoseine. The following day she felt better but complained of not being able to move her bowels for the past four days. She was not permitted to leave her bed and likewise no catharsis was administered so as not to force the patient to any form of activity that might bring about a recurrence of the hemorrhage. Late in the afternoon of the fourth day she developed choreoform movements and at night a return of her psychosis. An examination of the eye grounds was negative. There was no Kernig nor Brudzinski sign present. The reflexes were active but not exaggerated. In the morning she complained of her bowels. An enema was ordered without effect. A high soap suds enema also was ineffectual. A large dose of Petroleum did not bring about any relief although the patient complained of terrific pain across the abdomen probably due to the hard fecal masses movement in the intestines. Her chorea remained the same. As the obstipation would be augmented by morphine or the opiates in general they were used sparingly to control the pain. Toward evening of the fifth day her abdominal pains became more marked with no particular point of origin. Her temperature rose to 103 degrees and her chorea was most pronounced. Twice during the night she ordered an imaginary man from the room. (The patient has never been out with a man). Her heart was rapid—the sputa however remained blood free. In view of the rise in temperature and increase in pain and in spite of the enemas, a castor oil cocktail was ordered with good results on the morning of the sixth day.

The following few days the psychosis of the first few nights ceased but her chorea continued up until the fourteenth day when gradually she began to show signs of improvement. She had no hemoptosis after the fourth day of treatment. She was advised to remain in bed for six to eight weeks to permit proper healing of the lung. A careful survey of the chest reveals only a peribronchial thickening with no evidence of any acid fast infection.

DISCUSSION

The chorea was probably caused by alimentary toxemia. A laxative would have been given at an earlier date but it was feared that the activity following would bring about a recurrence of the hemorrhage although the acticity on the third night was without any deleterious effect. Measures were taken to prevent another recurrence of the hemorrhage.

WHY PHYSIOTHERAPY?

ARTHUR E. SCHILLER, M. D.,
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A friend who was discussing the practice of medicine once said to me, "With all the drugs in the pharmacopea, why physiotherapy?" I am endeavoring to answer this question.

A few years ago when the treatment of disease by other than the most orthodox methods was mentioned, it was done in a most circumspect manner, and then accompanied by almost prohibitive reservations. Then came the war and with it the recognition in rehabilitation camps and in government industries that physiotherapeutic measures had as definite a place in the treatment of injury and disease as had the old time-and-tried internal medication and surgical procedure.

Quick to realize that it was to their advantage to spread propaganda for the use of the new measures, were the companies manufacturing apparatus of various types. Some of this they deserve great credit for, but being in the business for the purpose of making money, quantity production became the aim and the truth was unquestionably stretched to some extent. Hanging along the tail of the pendulum, which was now swinging in a wide arc, came all the cults and isms, leaving a large, dark smudge in their wake. These were of the type who, to quote Fishbein, the editor of the A. M. A., "believe that high frequency means the treatment of eighty patients a day."

Continuous experimentation with the constant elimination of untrue and untried statements changed that aspect rapidly. The adoption of physiotherapy by the hospitals throughout the country; by the industrial boards and commissions and the adding of a chair of physiotherapy to the curriculum of many important colleges and universities, is beginning to present a true light on the subject of physiotherapy. I think that W. H. Mac Cracken, Dean of the Detroit College of Medicine, strikes a true

note, when he makes the following statement: "It may be said that physiotherapeutics often lends itself to accurate observation better than does drug therapy. A grave danger at this stage lies in the possibility of encountering apparent therapeutic miracles, which seem constantly to occur and are bound to impress the student unduly, and to create in his mind the idea that he is dealing with an agent of general curative properties, which will help any patient, no matter what may ail him. Cold water must be carefully poured over excess enthusiasm, and the student's feet must be securely planted on the ground. After a little, he will pass the miracle stage and he will see physiotherapy as just what it is, an extremely valuable weapon for him to use with careful judgment in his combat with disease and suffering.

"The fact remains—physiotherapy is here, knocking on the doors of the medical schools, and demanding no small place in the community of courses, which we will call the curriculum. Those schools which have as yet failed to provide such a place will find themselves compelled to take action in the near future, or else will behold the spectacle of some of the ablest of their would-be student's going astray after alluring therapeutic gods."

With this short preamble, we will take up the major therapeutic measures.

ULTRA VIOLET ENERGY

The most discussed portion of the radiant heat and light treatment at the present time is that of ultra violet energy. The value of this treatment is admitted by all. Every medical man in general practice has seen diseases caused, or aggravated by the absence of ultra violet energy and cured, or relieved by its presence. Its curative action is, apparently, due to a stimulating action on the skin and its glands; that is to say, the consecutive effects are increased cutaneous circulation, increased cellular activity, and increased cutaneous nutrition.

Hess, Unger, as well as numerous other observers have shown beyond the question of a doubt that ultra violet energy is a distinct curative agent in the treatment of rickets and allied disorders and that there is a general increase in the amount of calcium and phosphorous found in the blood following ultra violet radiation. No other one agent has shown the same ability to control post-operative infection, infected wounds and infected burns. In all forms of chronic ulceration, the actinic rays are useful for their bactericidal and regenerative action. They are of value in numerous diseases of the bone, osteomyelitis, tuberculosis, etc., and in fractures to help increase the amount of calcium and phosphorus in the blood.

Sir Henry Gauvain of the Royal Society of Medicine, in discussing the light treatment of surgical tuberculosis, stated that he considered the light treatment a valuable accessory and that in sinuses, suppurating and discharging glands and bone tuberculosis, the results were far greater than he expected.

In the tuberculopathies in general, the work of Rollier, Finsen and numerous other workers have demonstrated that ultra violet energy, has given beneficial results following Rollier's progressive body irradiation.

GENERAL CONSIDERATIONS

The ultra violet ray is applied by two methods; the water-cooled, and the air-cooled. The water-cooled is used for its bacterial effect, or for a counter-irritant effect, according to the dosage. It is useful in the treatment of acne, lupus vulgaris, port wine stains and birthmarks, alopecia areata, cases of dental affections (such as pyorrhea) furunculosis, and infected wounds. These are treated at a close range and the ray produces a reaction which helps to destroy the end products of infection. It is valuable in the treatment of pruritis of the anus and vagina.

The air-cooled lamps emit the longer light waves, between 4,000 and 3,000 angstrom units, the water-cooled between 3,000 and 2,000 angstrom units. The air-cooled rays are more penetrating than the short rays. They produce a greater erythema. They are chemically oxidizing and stimulating to metabolism, while the shorter waves are more bactericidal. The air-cooled lamp is used as a builder. The effects are peripheal stimulation through nervous reflexes increasing the circulation of the blood; increased nutrition; increased local metabolism and phagocytosis. The results are due to increased elimination, relief from toxic condition and increase in hemoglobin. It has an unquestionable effect on the endocrine glands. There is an increase in the ionic calcium and inorganic phosphorous content of the blood serum and in the case of rachitic infants there is clinical and roentgenographic evidence of healing. The ray also produces a fall in the leucocyte count.

CONDITIONS BENEFITED BY HELIOTHERAPY

(1) Tuberculosis of the skin, lungs, peritoneum and bone.

(2) Rickets, asthma, infantile tetany.

(3) Disorders of metabolism depending on lessened calcium and phosphorous production.

(4) Various types of skin lesions such as acne, psoriasis, alopecia areata, infective dermatoses.

(5) Skin and wound infections; a stimultant in the epitheliazation of wounds, burns and varicose ulcers.

(6) In fractures which fail to unite, together with thyroid calcium therapy; in osteomyelitic conditions.

DIATHERMY

Diathermy is nothing more or less than an improved method of employing heat as a therapeutic agent. It cannot accomplish miracles, but wherever heat is indicated, diathermy provides a better method of delivering this heat. The body tissues conduct electricity, but they offer more or less resistance to the passage of the current. It is this resistance to the current which produces the heat. We can localize this heat at any depth and the actively circulating heat of blood causing absorption of products of inflammation promotes tissue oxidation, stimulates metabolism, relieves congestion and thus gives relief from pain.

MEDICAL INDICATION

The indications for the medical employment of diathermy are purely the indications for heat. Whenever heat is likely to be beneficial, diathermy is far more effective than any other method of aplying heat now in use. With hot packs, baking and the electric pad, the elevation of temperature is largely superficial, whereas with diathermy, the heat can be delivered wherever most desired. However, a diathermy apparatus is not a pocket toy that can be carried around, hence it cannot be expected to replace the less effective, but more easily provided and cheaper means of utilizing heat. But for hospital, or office use in the treatment of certain conditions it is well-nigh indispensible.

In industrial surgery, the early use of ultra violet ray and diathermy combined will produce a condition of surface sterilization and increase of blood to the injured part, saving many days of injury, much loss of time and much money to the factories. In orthopedics, this combined method is found of great advantage, particularly in osteomyelitis, the bones showing a rapid healing after operation and the shortened period of disability and freedom from skin infection is remarkable. In the arthritides, used in combination with the various analgesics, the results have been excellent.

In certain types of acute gonorrheal infections, the reported results have been surprising. The gonococcus is particularly sensitive to alterations of temperature and is said to be destroyed by a degree of heat a little higher than that of the body. Efforts have been made with various machines to raise the temperature of infected tissues to about 113 degrees Fahrenheit. Naturally, this can be better affected by diathermy than by any other method, but in my hands this method has not been efficacious and I have abandoned it in favor of the more orthodox methods. This applies to the acute urethral infections.

Prostatitis may be treated by a suitable electrode in the rectum and another over the symphsis pubic, and the results do warrant its use, but the condition that is best suited for this treatment is the cervix, using either a glass, or hard rubber speculum and an active electrode of either a copper rod, or a metal disc from one-half to three inches in diameter. When using the disc the cervix and the glands are heated throughout. With the rod electrode the mucous membrane of the canal is treated. Applications are made about twice a week, it taking on the average of five or six treatments to free the surfaces from gonorrhea. In the male, diathermy is more useful in treating the complications of gonorrhea than a primary gonococcus infection.

In the case of epididimitis, the results far surpass that of other methods, a cap-shaped electrode made of lead foil lined with gauze is useful. In posterior urethritis the results from diathermy are as definite as they are indefinite in anterior urethritis. In most cases urethroscopy shows that there are very definite lesions in those cases in which there is a persistent posterior urethral discharge. Infiltrations of the verumontanum and the orifices of the ejaculatory ducts are present, in addition, the mucous membrane is edematous and there are numerous granulations. Destruction of these polypoid masses by diathermy through a posterior urethroscope will best clear this.

"In many patients diathermy alone will not bring about the best results, to obtain which diathermy must be combined with other forms of electro or physiotherapy; hence in any well organized clinic, or hospital, diathermy should simply form part of the electro and physio-therapeutic armamentarium and should best be concentrated under one direction. We often see the administration of diathermy by a nurse, without the supervision of a physician trained in electro and physio-therapy. This is unfortunate, because the secret of results from diathermy lies in the thorough understanding of the underlying principles, the careful selection of patients and close attention to the many details of such treatment. Neglect

of these fundamental requirements can only lead to bad results and to disappointment, or which is still worse, to an extension of the kingdom of quackery." (A. U. Desjardins, M. D. and Ann Kelly, R. N., Mayo Clinic).

Diathermy relieves congestion wherever present because of the marked activity of the arterial circulation.

Diathermy produces marked analgesic effects and relieves all kinds of pain. Relief from diathermy is more lasting than from conductive or radiant heat. The long continued relief experienced by heating the deep tissues is due to the slow return to normal temperature; the cooling of the tissues takes place by conduction through the circulation, while skin cooling is rapid through radiation.

TIME OF TREATMENT

The resistance of the skin, the thickness of fat underneath the skin or anywhere between the electrodes, the moisture of the tissues, the density of all the tissues, the reflexes of the patient, the distance between the electrodes, the size of the electrodes, and degree of temperature desired all enter into the consideration of time of treatment. The greater the skill of the operator the better results.

CONTRA-INDICATIONS AND PRECAUTIONS

Medical diathermy is positively contra-indicated where there is a recent history of hemorrhage; no matter where the hemorrhage is, that part must be avoided. While papilloma of the bladder are easily destroyed by diathermy, a most disagreeable hemorrhage might occur therefrom through an application of the high frequency current to the prostate. It should not be applied within twenty-four hours of the menstrual period. Pregnancy is a positive contra-indication to its use below the waist line.

Diathermy powerfully stimulates the secretion of glandular organs and consequently should not be applied to the thyroid gland in hyper-thyroidism. It should not be applied to any place where there is a collection of pus and no drainage.

SURGICAL DIATHERMY

Surgical diathermy comprises the application of destructive heat to animal tissue and structures. This heat is produced by the high frequency current and is not a direct application of electricity. The heat is either produced by the spark due to the closing and interrupting of the current, or by the resistance that animal tissues offer to the current forced through them. Surgical diathermy is far superior to the Paquilin, the soldering iron, or the galvano cautery, because it guarantees an orderly procedure of coagulation without any incidental interruption, which is so frequently observed during the use of the appliances above mentioned and which is caused by the cooling off of the instrument, or by the resistance of the scab formed by burning.

In surgical diathermy the heat is concentrated on one spot and when properly applied it effects the destruction by heat coagulation and not by charring, for the heat instead of being developed in the instrument is developed in the part treated and the tissues are firmly coagulated, thus preventing hemorrhage.

The methods of its application are threefold; the unipolar method, utilizing a small active, or one small and one large electrode; the bipolar method, using two small active electrodes; the indirect method, in which the patient lying on a condensor couch attached to one terminal is charged with a suitable diathermic current, which is tapped off to the body of the operator at the point to be destroyed. Space prohibits enlarging on this important phase.

ROENTGENOTHERAPY

Treatment by the X-ray is commanding more and more attention and a large variety of conditions are being treated successfully by the X-ray. In my own special field of dermatology, there are but few cases that are not benefitted by X-ray treatment and there is a saying that dermatology made its greatest strides following the improvement of X-ray equipment and the appearance of roentgenotherapy. Needless to say, radiation before and after a surgical excision of cancers has prolonged the life of many cancer sufferers and in some few instances has produced cure. The treatment of enlarged glands has been very successful. Irradiation of the spleen and thyroid have met with success in conditions depending on faulty thyroid metabolism. Asthma, bronchitis and pertussis have been treated by irradiation with rather favorable percentage of improvement.

INDIRECT DIATHERMIA IN SINUS INFECTION

The bugbear of the otolaryngologists are the acute and chronic sinus infections. This portion of the head which contains the inferior, middle and posterior meatuses, is of great importance clinically. The sinuses are possessed of low recuperative power and a great variety of symptoms, such as headaches, digestive disturbances, rheumatic fever, eye ache, etc., are caused by the infec-

tion of the frontal, ethmoid and maxillary sinuses. Operative procedures should be done with caution and Ballenger makes a strong plea for rationalism as opposed to radicalism in the treatment of sinus infections. Where there is an empyema of the sinus with no drainage whatsoever, diathermy is contra-indicated. Otherwise, indirect diathermy should be tried, as the results have far surpassed any expectations.

CONTINUIUS CURRENTS

Continuous currents have a limited, but definite place. The sinusodial current is a wonderful substitute for exercise, where exercise is impossible and as a muscle stimulant in enterptosis, paralysis and muscular debility, it stands without a peer.

The Galvanic current is used for its chemical effect only and has a definite diagnostic value. It can be used for the removal of superfluous hair.

To enter into a discussion of other modalities would merely be to confuse a presentation that I have tried to make brief and clear.

SUMMARY

1. Why physiotherapy?
   (a) Because physiotherapy has as definite a place in the treatment of injury and disease as the old time-and-tried internal medication and surgical procedure.
   (b) Because it is a hospital necessity, best carried out in a hospital, or office.
   (c) Because it covers all physical measures, heliotherapy, thermotherapy, electrotherapy, hydrotherapy, roentgenotherapy, etc.
   (d) Because, used with common sense and applied with a definite technic and scheme, it gives results that are sometimes startling.
2. Ultra violet ray therapy is of value.
   (a) For its bactericidal effect.
   (b) For its ability to cause changes in the blood and produce an increase in the calcium and phosphorus of the blood and for its ability to cause metabolic changes.
3. The most important electrotherapeutic modality is that of diathermy.
4. Diathermy is most useful medically in:
   (a) Inflammation arising from trauma, local infection, defective metabolism and toxic conditions.
   (b) Conditions of muscular spasm associated with local inflammation with associated impaired function.
   (c) Surgically as an aid in treatment of malignant disease and as a distinct operative procedure.
5. Endothermy is the development of a smooth high frequency current, which permits of cutting tissue without bleeding.
6. Auto-condensation is useful in reducing hypertension.
7. The study of diathermy in pneumonia deserves close consideration because of the results so far obtained.
8. Static current may be used as an alterative with diathermy and while not so valuable, does produce results in neuritis and neurasthenia.
9. Galvanic current. The positive pole has analgesic and haemostatic properties; the negative pole has the ability to soften scar tissue.
10. Sinusoidal current is used to produce exercise of muscles through a stimulation of the motor end plates in the muscles.
11. Roentgenotherapy is most valuable modality for the treatment of cancer, thyroid, spleen, asthma, bronchitis, pertussis, and various dermatologic affections.
12. Hydrotherapy and other physiotherapeutic modalities have not been discussed because of your familiarity with these subjects.

THE JOURNAL

IS

YOUR FORUM—

WE INVITE YOU

TO UTILIZE

IT FOR THE

EXPRESSION OF

YOUR VIEWS

ON

MEDICAL SUBJECTS

PUBLIC HEALTH ACTIVITIES

Edited By

MICHIGAN DEPARTMENT OF HEALTH

EPIDEMIC OF TYPHOID FEVER IN EATON RAPIDS, MICHIGAN

During December, 1925, an epidemic of typhoid fever in Eaton Rapids, Michigan, which included thirty-five cases and four deaths, was traced to a carrier, a woman over seventy years of age, who had prepared squash for a church dinner at which all the cases were present. The squash was prepared the night before the dinner, warmed over the next morning and mixed through a colander with other squash, the woman doing the mixing with her hands. Without doubt, typhoid organisms were implanted from soiled hands.

At the beginning of December, reports of several cases of typhoid fever at Eaton Rapids were received at the Michigan Department of Health. At the same time several co-eds at the Michigan State College, East Lansing, became ill of the same disease.

When it became known that students of the Home Economics class at the college had visited the woolen mills at Eaton Rapids and, after the inspection, had been entertained by a church organization with a turkey dinner, it was easy to conclude that there was some connection between the two groups of cases and that the dinner was probably responsible.

The water supply of the village on several different occasions was proven to be free of any gross contamination, a sample of the water having been sent to the state laboratory by the city engineer a day or so before November 18, the day of the dinner. Reports at that time showed the city supply as safe for drinking purposes. The three dairies located in the city were investigated and gave no cause for suspicion.

The church dinner, open to the public, was held on November 18 at the Masonic hall and was attended by about 250 persons. Thirty-five cases of typhoid were subsequently traced as having been at the dinner, nineteen of them located in Eaton Rapids, eight in East Lansing, two in Lansing, two in Charlotte, one in Ithaca, one in Lowell, one in a suburb of Chicago and one in Jacksonville, Florida. All of these cases, after attending the dinner, had returned to their homes.

After it was decided that the dinner was the origin of the epidemic, the task of ferreting down the source of contamination and the food in which it was conveyed was undertaken. Three physicians, an inspector and a clerk were sent to Eaton Rapids by the state commissioner of health.

The investigation lasted ten days. Two hundred seventeen persons, including the cases and contributors of food, out of the two hundred and fifty who attended the dinner were interviewed. Four hundred eighty-three specimens were examined at the laboratory during the course of the investigation.

Thirty-six persons furnished or prepared foods, waited on table, or assisted in the kitchen. All these people were seen and questioned as to the articles of food cooked or prepared in a raw state. Histories were obtained as to previous typhoid fever from these people as well as from members of their families. Printed blanks were used for obtaining this information.

All cases of typhoid originating from the dinner with the exception of four were interviewed. Laboratory confirmations were obtained on all cases with the exception of three, two of which were in other states.

Widals and feces examinations were done on thirty-two of the thirty-six contributors. Repeat examinations were made on all contributors giving a history of typhoid fever. The four contributors from whom no specimens were obtained had merely ordered food by phone from a local grocer and had not attended the dinner.

The carrier was finally traced to an old lady over seventy years of age. This woman had typhoid fever in 1900. Feces and urine showed typhoid organisms on repeat examinations.

The health officer, physicians, owners of the woolen mills and the general public at Eaton Rapids co-operated in the most public spirited way and gave every assistance they could to the officials of the health department throughout the investigation.

STATUS OF BIOLOGICAL PRODUCTS

The status of biological products for the treatment and prevention of scarlet fever has altered considerably in the last six months. Drs. George F. and Gladys H. Dick received a patent under date of July 28, 1925, which covered the preparation of the products for the treatment and prevention of scarlet fever. This patent was assigned to the Scarlet Fever Committee, Inc., a philanthropic committee, which will manage the licensing of manufacturers under the terms of contracts prepared by the Scarlet Fever committee. The Scarlet Fever

Committee, Inc., will receive certain royalties which will be utilized in maintaining a preventive medicine clinic in the city of Chicago for standardizing the scarlet fever products, as these products have the peculiar property of being specific for man, and have practically no effect on the lower animals. Therefore standardization must be done on individuals who volunteer for or are paid for the job.

Up to date the Scarlet Fever committee has issued only two licenses although others have been applied for and their products are in the process of being investigated by the committee. The E. R. Squibb and Company of New Jersey were issued license No. 1 for the general sale and distribution of these products in the United States. The State of Michigan was issued License No. 2 on January 6, 1926, to manufacture and distribute these products within the state of Michigan. Necessarily, it will be some months before the state is in production so that distribution can be undertaken. Every effort will be made to carry on contemporary investigations to improve the products for the treatment and prevention of scarlet fever.

The use of concentrated scarlet fever antitoxin for the treatment of scarlet fever has been demonstrated as an extremely effective therapeutic measure and is recommended for use by the commissioner of health.

The use of scarlet fever antitoxin in small doses for temporary immunization of contacts is wholeheartedly condemned, for the reason that horse serum immunity lasts only a short period and in the majority of cases the individuals given the prophylactic doses will again become susceptible to scarlet fever before the case in the house has become non-infectious. As there is no definite means of predetermining the exact length of time in which a person will be rendered temporarily immune by the prophylactic dose, this method should be eliminated from the scarlet fever prophylaxis.

Scarlet fever toxin for making individuals more or less permanently immune should be used with great caution as the dosage has not been established with accuracy.

Anti-streptococcus serum, unconcentrated, should not be used under any circumstances as the protein reactions are often more serious than the disease.—C.C.Y.

PREVALENCE OF COMMUNICABLE DISEASES FOR YEAR 1925

The tentative report covering the prevalence of Communicable Diseases for the year 1925 must be very satisfactory to anyone who will take pains to study the figures.

The first item, pneumonia, which shows an increase of 1,140 cases is more significant of better reporting than of increased incidence, but even this advanced figures is considerably below the average for the preceding five years.

There was a slight increase in the number of tuberculosis cases reported both as compared with 1924 and the five year average.

Typhoid fever showed an increase in the number of cases but is still almost twenty-five per cent below the average, 1924 being an exceptionally favorable year for this disease. There have been several small outbreaks in different parts of the state, but prompt and effective action has prevented any widespread epidemics.

Probably the most remarkable showing is found in diphtheria, a decrease of almost 2,100 cases, equivalent to 34.5 per cent as compared with 1924 and is less than one-half of the five year average. There seems to be no question but that the active campaign of education and prevention which has been carried on for the past few years is beginning to bear fruit.

Whooping cough shows a noticeable increase but as this is a disease of marked periodicity this increase was not unexpected. But little can be done to control this disease without the active co-operation of the parents.

Scarlet fever showed a slight decrease from 1924 but an increase of almost 1,000 cases over the five-year average. For the past two years this disease has been very prevalent.

Measles showed a decrease of almost 8,000 cares between 1925 and 1924, but as this is also a disease of marked periodicity, this decrease is not significant except to indicate that we are on the declining side of the curve.

Smallpox showed a very satisfactory decrease from 4,527 cases in 1924 to 784 in 1925. The severe epidemic in Detroit in 1924 did not reappear.

Meningitis indicates simply the report of a few sporadic cases.

Many health authorities were fearful of an epidemic of poliomyelitis in 1925 on account of the unusual incidence in 1924. This, however, did not develop and the number of cases reported were considerably below the five-year average.

Venereal disease showed considerable increase in the number of cases reported, the number being the greatest ever reported in this state. This is not, however, to be taken to mean that there is an increased number of cases but simply that there has been better reporting and when it is considered that a reported case may usually be regarded as a treated case, it indicates that persons are beginning to realize more fully the significance of this disease and the increase of proper medical attention and a decrease of self-medication and lack of treatment.

As a whole, we may conclude that the year 1925 has been a year of satisfactory conditions in the public health of Michigan. Most of those diseases which are amenable to scientific control have been reduced and it is believed that a continuance of active preventive measures will result in still greater reductions.

NEW BUREAU OF ORAL HYGIENE AND PREVENTIVE DENTISTRY IN THE STATE DEPARTMENT OF HEALTH

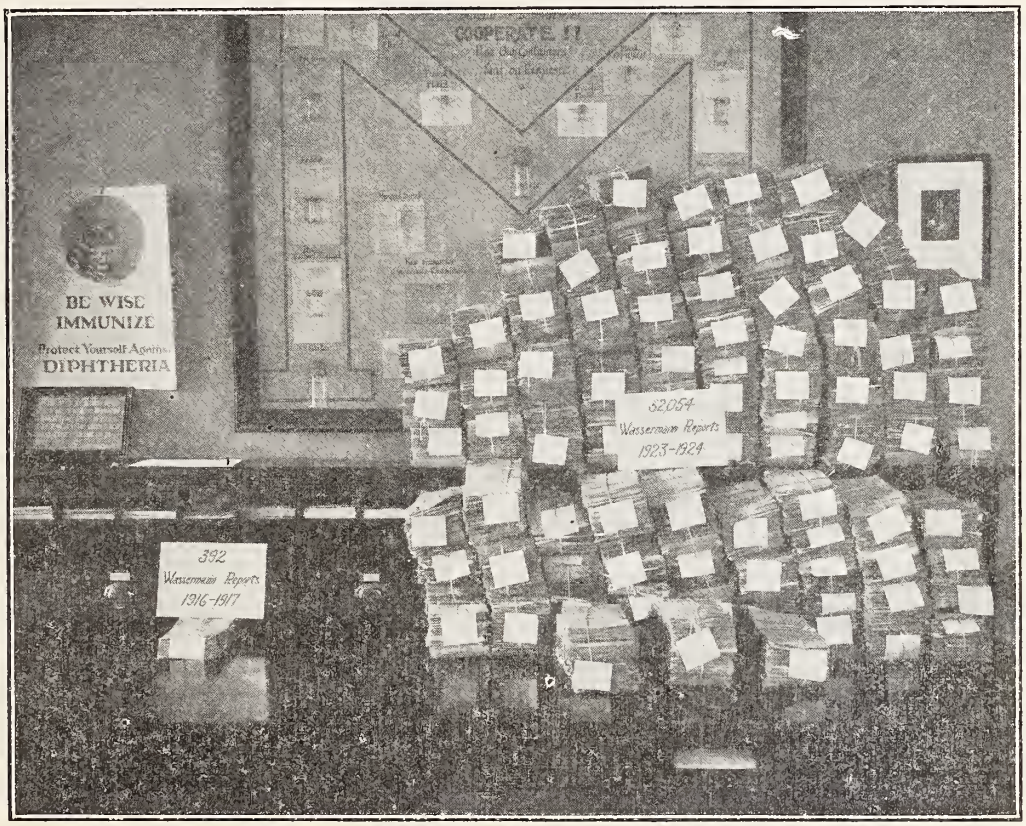
At the last meeting of the State Advisory Council of Health held in Lansing, November 18, a new Bureau of Oral Hygiene and Preventive Dentistry was established in the Department of Health.

The general purpose of this new bureau is to promote a better understanding of the relationship of infection in the mouth to general systemic disease, and to educate the public to the necessity of eliminating infection from the mouths of school children for the purpose of raising the standard of health in the public schools.

The department of health can be congratulated in securing as director of this new bureau, William R. Davis, A. B., D.D.S, formerly director of the department of oral hygiene in the Flint board of health. During the past five years Dr. Davis not only made a name for himself, but largely through his untiring efforts, oral hygiene among the school children of Flint ranks among the best of any city in the country, and the standard of health has been appreciably raised.

Dr. Davis is preparing extensive plans for the organization of the new bureau, and will need the help and co-operation of both medicine and dentistry in Michigan in making it a great factor in health service for the people of the state.

With the proper co-operation, what Dr. Davis has accomplished in Flint, can in time, be accomplished in Michigan.



Comparison of Wassermann Reports for 1916-1917 with 1923-1924, Made to Michigan Physicians by the Michigan Department of Health Laboratory

Since March, 1924, the Michigan Department of Health has been sending certificates of birth registration to parents of all children born in the state of Michigan and accompanying this certificate is a message to parents, giving important points on infant care.

Considerable delay is caused in sending these certificates to the parents, due to insufficient address given on the original certificate sent in by the physician. In fact, some certificates are sent in with only a general address, as Detroit, Michigan or Jackson, Michigan, giving no street and number.

In the month of September, 1925, 7,884 certificates were sent out and 300 were returned marked "unclaimed" and "insufficient address" and this does not include certificates which are

delayed until the physician can be communicated with and the proper address secured.

If the original certificates sent in by the physicians were made out with a complete address, the matter of sending out these birth certificates would be very much simplified and hastened.

The recent cold weather brought repeated inquiries from all sections of the state as to the effect of freezing on antitoxin, toxin-antitoxin mixture, Schick material, and specimens submitted to the laboratory for examination.

Freezing does not destroy the antitoxic value of diphtheria antitoxin, provided that when the antitoxin is thawed out, it is thawed slowly enough so that it does not heat up sufficiently to coagulate the serum; in other words, as long as antitoxin is fluid it is potent. Toxin-antitoxin mixture, as prepared by the Michigan department of health, when frozen, does not increase in toxicity. Schick material is satisfactory for use as it retains its original potency. In case the saline freezes and cracks the vial, danger of contaminating the contents is of course eminent.

The one serious interference with laboratory procedure caused by freezing is that freezing hemolyses blood specimens submitted for blood chemistry and serological diagnosis of syphilis. Every effort should be made by physicians to protect samples against freezing during the cold weather of January, February and March.

The following biological products are distributed free of charge by the Michigan Department of Health:

Diphtheria Antitoxin.
Toxin-Antitoxin.
Schick Test Material.
Typhoid Vaccine.
Silver Nitrate Ampules.
Neo-Arsphenamine (For Indigent Cases).
Sulph-Arsphenamine (For Indigent Cases).

The Department keeps in stock a small supply of the following biological products for emergencies:

Antipneumococcic Serum.
Antimeningococcic Serum.
Antistreptococcic Serum.
Dysentery Serum.
Acne Serobacterin.
Neisser Serobacterin.
Proteins.
Catarrhal Vaccine.
Human Botulinus Antitoxin "Type A."
Pollen Extract.
Influenza Bacterin.
Tetanus Antitoxin.
Tuberculin Old "OT".
Tuberculin Old for Von Pirquet Test (Human and Bovine Types).
Smallpox Vaccine.

The physicians may purchase these products at cost plus 10 per cent when they are unable to get immediate deliveries from the biological houses.

PREVALENCE OF DISEASE

January 1 to December 31, 1925

Cases Reported

	1925	1924	Average 1920-1924
Pneumonia	5,704	4,664	6,408
Tuberculosis	5,785	5,570	5,462
Typhoid Fever	959	782	1,232
Diphtheria	3,937	6,012	8,921
Whooping Cough	7,551	4,364	6,315
Scarlet Fever	12,306	12,995	11,346
Measles	10,336	18,290	17,185
Smallpox	784	4,527	3,470
Meningitis	126	157	166
Poliomyelitis	96	647	253
Syphilis	14,668	13,000	9,436
Gonorrhea	10,660	10,490	10,209
Chancroid	104	183	183

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health

December, 1925.

	+	—	+—	Total
Throat Swabs for Diphtheria	.....	.....	....	1449
Diagnosis	59	632	....	.....
Release	219	294	....	.....
Carrier	5	210	....	.....
Virulence Tests	10	20	....	.....
Throat Swabs for Hemolytic Streptococci	.....	.....	....	1072
Diagnosis	300	386	....	.....
Carrier	75	311	....	.....
Throat Swabs for Vincent's	54	826	....	880
Syphilis	.....	.....	....	5593
Wassermann	12	45	1	.....
Kahn	996	4465	65	.....
Darkfield	5	4	....	.....
Examination for Gonococci	170	1759	....	1929
B. Tuberculosis	.....	.....	....	473
Sputum	100	352	....	.....
Animal Inoculations	1	19	1	.....
Typhoid	.....	.....	....	705
Feces	61	352	....	.....
Blood Cultures	7	44	....	.....
Urine	2	13	....	.....
Widal	55	169	2	.....
Dysentery	.....	.....	....	245
Intestinal Parasites	.....	.....	....	21
Transudates and Exudates	.....	.....	....	411
Blood Examinations (not classified)	.....	.....	....	492
Urine Examinations (not classified)	.....	.....	....	390
Water and Sewage Examinations	.....	.....	....	579
Milk Examinations	.....	.....	....	61
Toxicological Examinations	.....	.....	....	5
Autogenous Vaccines	.....	.....	....	4
Supplementary Examinations	.....	.....	....	866
Unclassified Examinations	.....	.....	....	385
Total for the Month	.....	.....	....	15560
Cumulative Total (fiscal year)	.....	.....	....	112081
Decrease over this month last year	.....	.....	....	6727
Outfits Mailed Out	.....	.....	....	12845
Media Manufactured, c.c.	.....	.....	....	383220
Diphtheria Antitoxin Distributed, units	.....	.....	....	21287000
Toxin Antitoxin Distributed, c.c.	.....	.....	....	68620
Typhoid Vaccine Distributed, c.c.	.....	.....	....	1234
Silver Nitrate Ampules Distributed	.....	.....	....	8048
Examinations Made by Houghton Laboratory	.....	.....	....	1235

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

PUBLICATION COMMITTEE
R. C. Stone, Chairman.....Battle Creek
A. J. Mac Kenzie.....Port Huron
J. D. Bruce.....Ann Arbor

Editor and Business Manager
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Grand Rapids, Michigan

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The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications, or advertisements.

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FEBRUARY, 1926

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

AN EPOCHAL OCCASION

The beginning of a new chapter was written in the medical history of Michigan by proceedings that were initiated during the Conference that was held in Ann Arbor on Jan. 14. The occasion was the Joint Meeting that was attended by the Council of our State Society, President Little of the university, the members of the faculties of the Medical Department of the University and the Detroit College of Medicine and Surgery, representatives of the state department of health, state board of registration in medicine—and the State Hospital Association.

This meeting was initiated by a suggestion from our president, Dr. Darling, and those in attendance were the guests of President Darling and the Council.

It has long been recognized that these groups, concerned as they are with special features of medical and health work in our state as well as education of individuals and the public, were dealing with inter-related questions and problems. Each impinged and intermeshed with one another to a certain degree. There are common interests and common activities. Each group, however, has heretofore pursued an indiviudal and somewhat isolated course of procedure.

It was felt that if a Conference could be held at which these several problems of each group might be discussed and a more intimate knowledge be obtained of actual working methods that then some plan would suggest itself whereby a co-operative movement could be instituted that would, by reason of co-operation, enhance and advance the common interests of these groups. That was the real purpose of the meeting.

These objects were set forth at length by Chairman J. B. Jackson and President Darling who opened the discussion. Dean Cabot stated that there was need for co-operation between all of the groups and agencies of the state that were concerned with health and medical problems. He further stated that it was our concern as to what type of practitioners were being turned out by the medical schools and that it was our business to know what the general medical man was doing today, the type of work that was being advanced, the changes that were taking place, what the future field would be. He intimated that it was the obligation of all medical men to direct the policies of all agencies that were concerned with the health and medical care of the public and that we should maintain such close relationship. Dr. Cabot pointed out that the public looks to the profession to keep a high standard of medical practice in our state and that therefore a relationship should be established between the groups of this meeting in order to influence policies, to use facts and to inspire higher degrees of efficiency.

Dean MacCracken told of the work that was being accomplished by the Detroit College of Medicine and Surgery, the service that was being rendered to the profession and intimated that a closer relationship of the two medical schools of Michigan would enable each one to better promote higher medical standards among the graduates.

Ex-President Biddle stated that it was his conviction that the time had arrived for the University of Michigan to give serious thought to providing opportunities to the profession of our State for post-graduate work. He stated that the time had come for the university to come to the aid of those who were desirous of increasing their medical knowledge and to aid those who were desirous of entering a specialty. He was glad that this movement was being initiated by the State Medical Society and was very hopeful that out of this meeting, a unity of action would result to the benefit of the public and profession of our state.

President Little of the University discussed the problem in general and stated that the university was in hearty sympathy with the

needs of all men of Michigan and that as the details became evident, he had no doubt but what sympathetic support and action would emanate from the university authorities. He further advanced three suggestions for consideration: (1) The treatment of the epileptic child that was not feeble-minded. (2) A study of the population problem of the state. (3) Post-graduate work.

Dr. Olin, the state commissioner of health, expressed his view as to the work that would result from this proposed co-operative movement. He stated that his department was opposed to any layman being employed to govern and direct public health work who only possessed the degree of doctor of public health. He stated that those who assumed to serve and direct public health work should be graduates of medicine and should, in addition, possess the degree of doctor of public health. He further stated that he was willing to present to the Council of the Michigan State Medical Society new problems and legislation bearing upon the administration health supervision in Michgan for advice and approval.

Dr. LeFevre, president of the state board of registration, presented the difficulties under which that board was being administered. He likewise cited the tasks that confronted them concerning the work of the internes in our hospitals and stated that the board was anxious to receive the aid and assistance of all medical men and hospital officials for the adoption of a schedule and plan for guidance in its work.

The above represent brief quotations from the remarks that were make. They are sufficient, however, to impart the sentiment that was expressed in this conference and point out the fact that these public men engaged in public service are giving serious thought to the problems and progress of our times. It may be stated as was intimated by President Darling, that this meeting was leading the way to a more desirable understanding on the part of the public and the profession in regard to modern scientific medicine. We are quite confident that from this meeting there will grow a concerted movement that will redound to the honor and credit of our State Society. The meeting therefore was one that marks the opening of a new epoch in Michigan's medical history.

COUNCIL MEETING.

This issue contains the minutes of the regular meeting of the Council, held in Ann Arbor on January 14 and 15. Our members are referred to these minutes and are urged to so ascertain the action taken by the Council as it concerned itself with the affairs of our Society. The three sessions that were held were consumed by the listening to the reports of officers and committees which inspired intense, earnest discussion directed toward developing and advancing the work of our organization. Every councilor attended all the sessions. It was indeed heartening to witness the very manifest desire to so supervise and direct the Society's affairs in order that individually and collectively our members might receive the fullest benefits that can be derived from organized effort. He who thinks, will be convinced, after reading these minutes and observing the work as it is being conducted, that the Council is commendably acquitting itself of the responsibilities that have been reposed in that executive body.

Our Post-Graduate Clinical Conferences are achieving results that are of incalculable value. In planning their continuance during this year it is purposed to add features that will arouse added interest and increase their value to every member. The Council directed that the Executive Committee and administrative officers shall take the necessary steps to formulate programs that will reflect and impart the wishes and needs of our members. It is predicted that while a goodly work was accomplished during this past year, that, by reason of the experience gained, these Clinical Conferences will be made so valuable during 1926 that they will command the interest and approval of every member to a far greater degree than did those of last year.

Our Society is in the most prosperous and flourishing state ever revealed in its history. It is meeting its organizational objects in full degree. It is concerning itself wtih the interests and betterment of its members. No doctor can afford to be un-affiliated. You have every reason to prize your membership for your Society's affairs reflect safe stewardship on the part of your Council.

PRESIDENT DARLING

Three Score and Ten.

On January 6 our president, Dr. C. G. Darling attained the age of three score years and ten. It is but the privilege of few to check off the years to that number. It is rare that we encounter men attaining that age whose physical and mental faculties permit them to continue in active professional work. Dr. Darling is such a man, daily engaged in active practice that has extended over a period of 45 years.

Little need is there to recapitulate the outstanding qualities that he reveals. He is too well known, beloved and esteemed. We do, however, extend to him the Society's congratulations and good wishes while we append our testimonials to the following that were tendered to him by his immediate co-workers:

To our Beloved Friend and Associate, Cyrenus G. Darling, M. D.:

Two score and four years have passed away since the great Profession of Medicine called you to her standard—forty-four long years of patient effort and brilliant achievement. Today you are singled out of the great honored group of Michigan's surgeons and physicians to bear their banner and represent them as their chief. To us, your colleagues on the staff of St. Joseph's, the honor comes as a personal one. For we know you best, can best appreciate the fitness of the choice, and glory in the tribute. You are a living witness today to every notable advance in the calling we dearly cherish; you are a worthy exponent of all its modern standards and ideals. To few is it given to stand as a link in the chain that unites the old order and the new. That is your proud privilege and we rejoice with you in its glorious realization.

Than we, none know better, that your life as a member of the profession that is honored in calling you son, has been one unbroken span of consecrated service to the suffering ones of God. Your skill, your courage, your life of thought and study have ever been at the call of suffering and distress. Where courage and determination were the factors in the solemn crisis, your hand has never faltered once. Where sacrifice was indispensable, who can say you ever gave a single thought to self? Your life has been shaped on the model of the Master Healer, whose great soul went out in sympathy to suffering and wrecked not that human frailty full oft was the forerunner of disease.

Your life, in its dignity and poise, its unwavering devotion to honor and the right, is full of inspiration to the young disciples of your calling; it is a strengthening example to your confrerers of the years.

Tonight the Staff and Sisters of Mercy of Saint Joseph's of Ann Arbor, whom for 15 years you have directed as Counselor and Chief and Father, gladly acclaim the recognition tendered you, happily lay this tribute at your feet, and pray that for a long time yet to come, you may be spared in fullest vigor to direct their destinies who are honored in honoring you.

December 1, 1925:

Michael P. Bourke
Mark Marshall
R. G. MacKenzie
R. Bishop Canfield
I. D. Loree
C. L. Washburne
A. C. Furstenberg
H. H. Cummings
A. William Coxon
A. D. Wickett
G. F. Muehling
Margaret Armstrong
Sam W. Donaldson
R. H. Dimock
T. Klingman
Hugh M. Beebe
Chalmers J. Lyons
Dean W. Myers
John A. Wessinger
Albert S. Barr
F. R. Waldron
George Slocum
Fred L. Arner
John L. Gates
Edwin Ganzhorn
E. K. Herdman
James F. Breakey
Sisters of Mercy—by Sister M. Ursula
A. H. Pearson

THE DISTRIBUTION OF PHYSICIANS IN RELATION TO POPULATION—A STATISTICAL SURVEY AND STUDY COVERING TEN YEARS

HARVEY GEORGE SMITH,
FREDERICK C. WARNSHUIS, M.D.

The question of adequate medical service for the public is being considered in many states. Are there sufficient doctors to give ample service to the people today? Is the old family physician delegated to the past or are we still to be favored with the professional and friendly service that the doctors of this rank have given in the past? Are the physicians congregating in large centers of population and leaving the rural community, the villages and small towns? In several states, particularly in the eastern part of the United States, there is a very marked movement of physicians to larger cities. Is this only a record of the moment or is it one that will effect all rural smaller towns and cities in the future? In other words, is the rural population, which approximates 46 per cent of the total of the United States, to be without adequate medical service and consequently, the urban population to be oversupplied with medical service? Or, again, are the medical requirements of a physician, established by state law, such that the graduates of medical colleges must be forced to the cities in order to secure sufficient hospital accommodations and remuneration to obtain a fair living and repay the expense of securing their education? These questions are in the minds of educators and sociologists throughout the United States today.

A detailed statistical and geographical study of the physicians in Michigan reveals information that answers some of the questions raised. This study covers the period from 1914 to 1925 inclusive. It includes all counties of Michigan and a complete study in relation to the population of 1914 and 1925.

The following tables supply general information on population of the entire state with Wayne County included. Wayne County is also shown in the same comparative manner as it includes the city of Detroit and is practically an urban county and permits of interesting comparisons.

TABLE 1
THE ENTIRE STATE INCLUDED

Year	Population	Doctors	Ratio Persons
1925	3,668,412	4,837	1:758
1914	2,810,173	4,180	1:672

TABLE 2
WAYNE COUNTY EXCLUDED

1925	2,490,767	2,733	1:911
1914	2,278,582	2,446	1:931

TABLE 3
WAYNE COUNTY

1925	1,117,645	1,920	1:613
1914	531,590	1,081	1:491

Comparisons of these tables indicate quite clearly that the ratios of doctors to population are in favor of the city. Between Wayne County and the entire state a difference of one hundred forty-five exists for the year 1925 and one hundred eighty-one for 1914. Greater differences exist if comparison is made between tables two and three, showing that doctors as a group outside of the city of Detroit care for 911 or 931 persons whereas in Detroit the relationship is 613 or 491 for the respective years 1925 and 1914.

This question of proportions raises the question of distribution and geographical location of doctors throughout the state. In order to obtain comparative data the cities have been classified into groups; the number of cities of each group with total population and total doctors resident in the various groups. Data on the average ages of the physicians is included also.

As might be expected the largest number of doctors are located in those cities having a population of ten thousand or more and include the city group of the highest total population. In comparing populations and the number of doctors for each group for each period 1914 and 1925 attention is to be given to the fact that in general where populations decrease there follows a decrease in the number of doctors and vice versa where populations increase there is an increase in the number of doctors resident. Under the columns of average ages there is a difference between 1914 and 1925, ages ranging from three-tenths of a year to five and five-tenths. In other words, the age of the doctors practicing medicine in the State of Michigan today is markedly greater than it was in 1914. By consulting table 4 the difference in the average ages of doctors in 1914 and 1925 is noted to be 4.4 years.

And again the lowest average age is found with the cities of ten thousand or more population and the highest, for 1914, in the group of one thousand to two thousand five hundred and for 1925, in the group of five hundred to one thousand.

TABLE 5

Classification	1914	1925
500 or less	1:233	1:206
500— 1,000	1:263	1:270
1,000— 2,500	1:344	1:400
2,500— 5,000	1:484	1:510
5,000—10,000	1:592	1:633
10,000 and over	1:500	1:564

Rural population which directly affects ratio in first groups not determined (Estimate at least 400 more.)

In table 5 the ratios in relation to city groupings are tabulated. Beginning with the one thousand group classification, 1925 shows that there are less doctors in proportion to population in these groups than there were in 1914. Census data is not available of the rural population that contributes directly to the villages in the other two groupings so that the ratios given represent only the actual village populations. If actual records were obtainable no doubt the ratios in these two groups would average at least four hundred more and the largest populations in proportion to resident physicians would be found in the 1925 column. As has been indicated above there are more doctors in the large cities in proportion to population than in the smaller cities and the villages. Further, the ratio is less to population in 1925 than in 1914. The curves plotted (Fig. 1 and 2) comparing 1914 with 1925 picture graphically the story of the geographical distribution of the doctors in the state. Wayne County is not included in the data used.

At what age are the largest numbers of physicians practicing medicine is a question that naturally follows the data given thus far. In order to secure this information a classification of the number of doctors by age groups was made, which is as follows:

TABLE 6
DISTRIBUTION OF DOCTORS BY AGE GROUPS

	Number of Doctors	
Age Group	1914	1925
25—29	154	128
30—34	241	240
35—39	357	262

TABLE 4

No. of Cities	Classification	Total Pop. 1914	No. of Doctors	Av. Age	Total Pop. 1925	No. of Doctors	Av. Age
153	500 or less	44,386	190	47.1	47,251	229	50.8
89	500— 1,000	68,803	261	47.	68,847	241	52.4
73	1,000— 2,500	140,984	410	48.8	131,628	330	52.
22	2,500— 5,000	100,270	206	44.7	79,098	157	51.2
26	5,000—10,000	148,521	251	48.	191,584	304	48.3
25	10,000 and over	561,504	1,128	45.7	830,145	1,472	48.
		1,064,468	2,446		1,348,549		

The summary of the ratios of doctors to population for 1914 and 1925 is as follows:

40—44	349	261
45—49	302	379
50—54	211	402
55—59	229	342
60—64	154	198
65—69	109	185
70—74	76	121
75—79	29	54
80 and over	14	40
25 or less	19	14

In order to visualize this information the curves have been plotted and are shown in

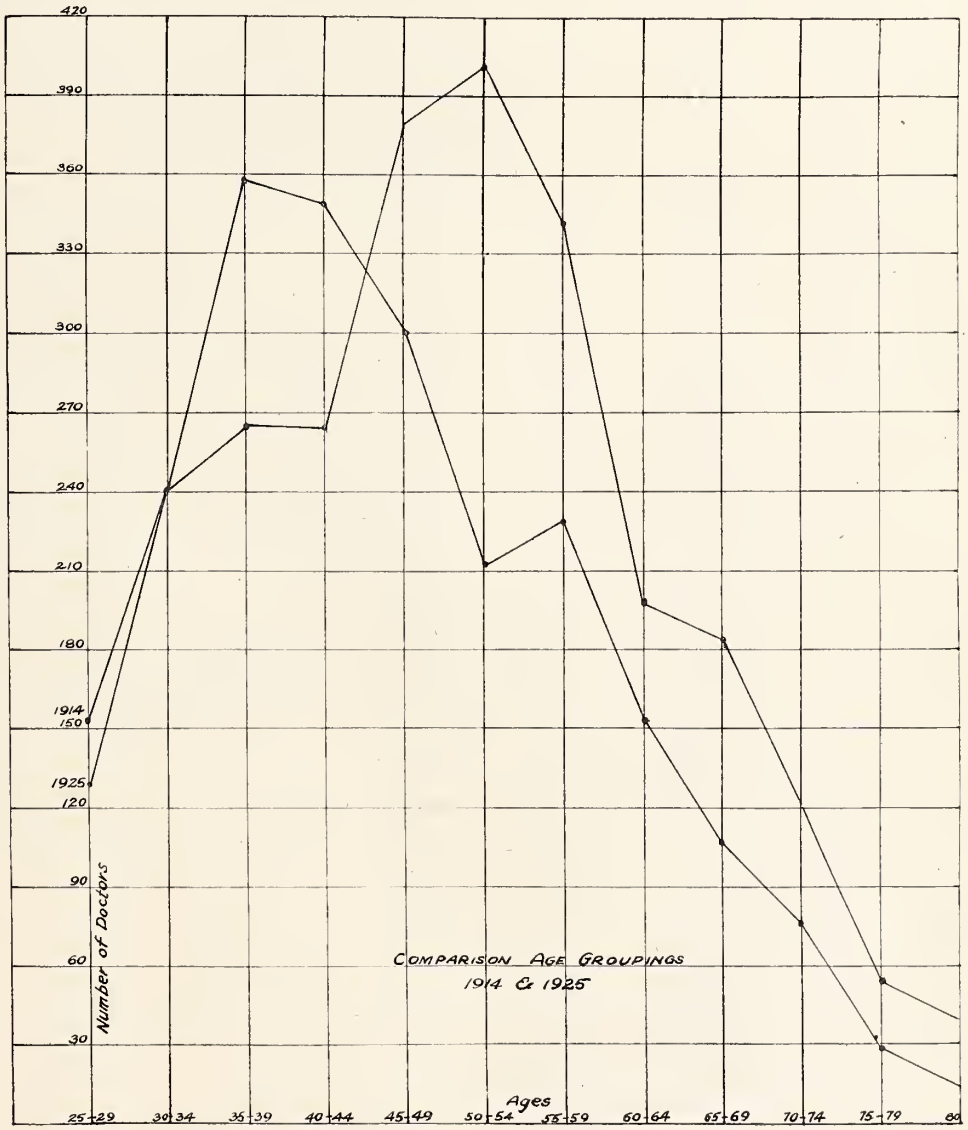


Figure 1

Cut 1. The largest number of doctors for the year 1924 are found to be between the ages of thirty-five and forty-five, while in 1925 the number is recorded between the ages of 45 and 55, there being fifteen years difference in the two high number groups. There are less doctors practicing between the ages of twenty-five and twenty-nine and more in the higher age groupings. At the age of eighty there were fourteen

doctors in practice in 1914 and in 1925 there were forty. In 1914, there were nineteen doctors twenty-five years old or younger and in 1925 there were only fourteen. These data lead to the questions, has the average age of the doctors increased over the eleven year period? Is the economic condition changed over the period under consideration so that the average doctor is forced to continue in active practice until physically unable or finally, have the requirements of the public, the state law and educational institutions been raised to such a high level that the age averages are naturally increased.

The villages are being deserted by the medical profession of Vermont. Is a similar situation in existence in Michigan. In order to make a study of possible changes the villages of one thousand and less population have been classified by the counties in which located and the number of doctors recorded

for the year 1914 and 1925. The table follows:

TABLE 7

DISTRIBUTION OF DOCTORS IN VILLAGES OF 1,000 AND LESS

	1914	1925
Alpena	7	8
Barry	10	8
Bay-Arenac	17	14
Benzie	7	7
Berrien	5	6
Branch	1	....
Calhoun	8	8
Cass	9	5
Charlevoix-Antrim-Emmet	9	9
Chippewa	3	3
Clinton	7	5
Delta	6	6
Dickinson-Iron	1	1
Eaton	17	11
Genesee	19	20
Gratiot-Isabella-Clare	18	18
Gogebic	4	5
Grand Traverse-Leelanau	8	6
Hillsdale	26	16
Houghton	10	11
Huron	7	7
Ingham	14	11
Ionia-Montcalm	23	27
Jackson	17	14
Kalamazoo	26	21
Kent	20	21
Lapeer	19	11
Lenawee	12	8
Macomb	19	15
Manistee	6	6
Marquette-Alger	7	5
Mason	7	5
Mecosta	11	9
Menominee	7	6
Midland	3	3
Monroe	15	11
Muskegon	7	4
Newaygo	9	7
Oakland	12	14
Oceana	3	2
O.M.C.O.R.O.	12	6
Ontonagon	5	6
Osceola-Lake	4	3
Ottawa	17	17
Saginaw	11	9
Sanilac	17	19
Schoolcraft	....	....
Shiawassee	14	6
St. Clair	6	5
St. Joseph	12	8
Tri	18	11
Tuscola	17	17
Washtenaw	13	8
Total	572	489

Thirteen counties show an increase in the number of doctors, twenty-seven show a decrease and twelve show no change over the eleven year period. There were five hundred seventy-two doctors resident in these counties in 1914 and only four hundred eighty-nine in 1925. This comparison clearly indicates that there are less doctors practicing medicine in the villages of Michigan of one thousand and less population than there were in 1914. The number of villages that had no doctors in 1925 is twelve and the number of villages that had no doctors in 1914 but had doctors in 1925 is three. Consult tables 8 and 9 below for the names of the villages and their location by counties. The villages without resident physicians are located within ten miles of larger centers with one exception, Baldwin which shows a marked decrease in population. It is twenty miles from the nearest resident physician.

TABLE 8

VILLAGES WITHOUT RESIDENT DOCTORS 1925

Alto—Kent County.
Weston, Jasper, Tipton—Lenawee County.
Diorite, Trenary—Marquette County.
Stanwood, Millbrook—Mecosta County.
Montague—Muskegon County.
Baldwin—Osceola-Lake Counties.
Brant—Saginaw County.
Bancroft—Shiawassee County.
Total, 12.

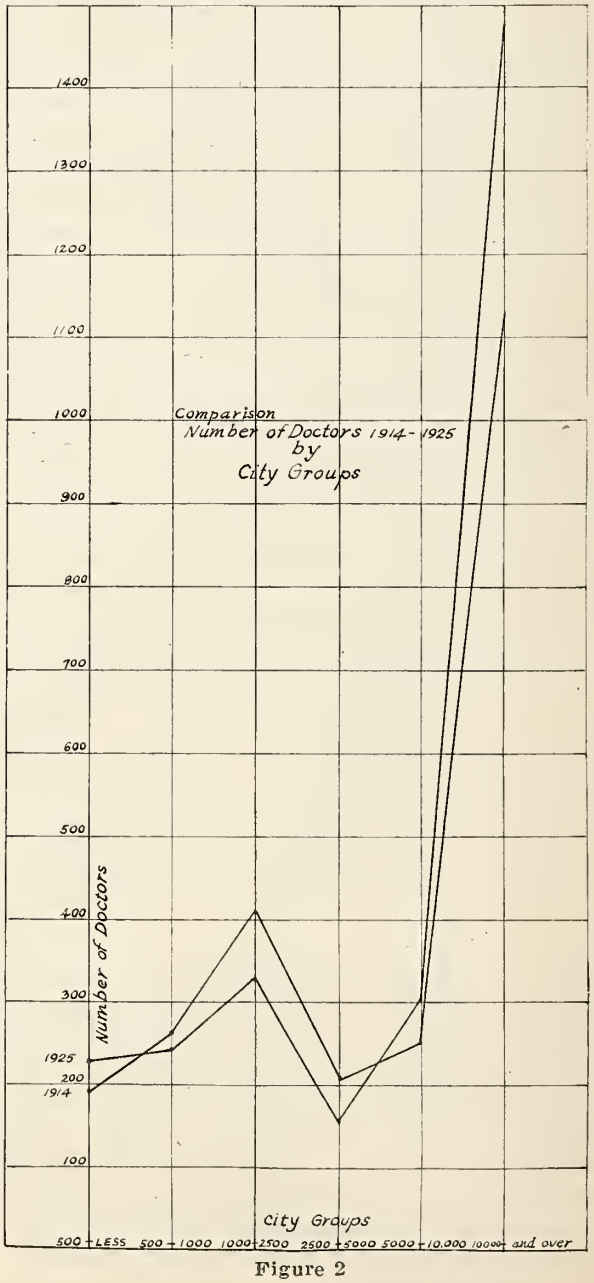


Figure 2

TABLE 11

County	Number Doctors 1914	Number Doctors 1925	Incr'se Over 1914	Decr'se Over 1914	Population 1914	Population 1925	Increase Over 1914	Decrease Over 1914
Alpena	26	22	....	4	36,917	34,912	.....	2,005
Barry	28	23	....	5	22,633	21,383	.....	1,250
Bay	92	84	....	8	68,238	69,549	1,311	.....
Benzie	10	9	....	1	10,638	6,947	.....	3,691
Berrien	63	60	....	3	62,653	53,622	.....	9,031
Branch	31	28	....	3	25,605	23,997	.....	1,618
Calhoun	121	134	13	....	56,638	72,918	16,280	.....
Cass	30	20	....	10	20,624	20,395	.....	229
Charlevoix-Emmet	49	36	....	13	53,410	32,970	.....	20,440
Chippewa	35	34	....	1	24,472	24,818	346	.....
Clinton	23	18	....	5	23,129	23,110	.....	19
Delta	28	28	....	....	30,108	30,909	801	.....
Dickinson-Iron	26	26	....	....	35,688	41,563	5,875	.....
Eaton	43	34	....	9	30,499	29,377	.....	1,122
Genesee	89	141	52	....	64,555	125,688	61,133	.....
Gogebic	22	24	2	....	23,333	33,225	9,892	.....
Grand Traverse	26	26	....	....	23,784	19,518	.....	4,266
Hillsdale	40	35	....	5	29,673	28,161	.....	1,512
Houghton	53	45	....	8	94,145	79,592	.....	14,553
Huron	16	16	....	....	34,758	32,786	.....	1,972
Ingham	91	136	45	....	53,310	81,554	28,244	.....
Ionia-Montcalm	78	59	....	19	33,550	33,087	.....	463
Jackson	80	100	20	....	53,426	72,539	19,113	.....
Kalamazoo	134	154	20	....	60,427	71,725	11,298	.....
Kent	232	296	64	....	159,145	183,041	23,896	.....
Lapeer	28	25	....	3	25,782	26,033	.....	251
Lenawee	62	51	....	11	47,907	47,767	.....	140
Macomb	49	52	3	....	32,606	38,103	5,497	.....
Manistee	18	16	....	2	26,688	20,899	.....	5,789
Marquette-Alger	48	44	....	4	46,739	45,786	.....	953
Mason	17	18	1	....	21,832	19,831	.....	2,001
Mecosta	26	17	....	9	19,466	17,765	.....	1,701
Menominee	16	14	....	2	25,648	23,778	.....	1,870
Midland	9	8	....	1	14,005	17,237	3,232	.....
Monroe	20	29	9	....	32,917	37,115	5,198	.....
Muskegon	45	69	24	....	40,577	62,362	21,785	.....
Newaygo	10	12	2	....	19,220	17,378	.....	1,842
Oakland	77	106	29	....	49,576	90,050	40,474	.....
Oceana	9	12	3	....	18,379	15,601	.....	2,778
O.M.C.O.R.O.	24	18	....	6	25,419	23,999	.....	1,420
Ontonagon	8	9	1	....	8,650	12,428	3,778	.....
Osceola-Lake	14	8	....	6	22,828	19,658	.....	3,170
Ottawa	44	45	1	....	45,301	47,660	2,359	.....
Saginaw	95	91	....	4	89,290	100,286	10,996	.....
Sanilac	19	19	....	....	33,930	31,237	.....	2,693
Schoolcraft	5	5	....	....	8,681	9,977	1,296	.....
Shiawassee	34	35	1	....	33,246	35,924	2,678	.....
St. Clair	67	72	5	....	52,341	58,009	5,668	.....
St. Joseph	33	31	....	2	25,499	26,818	1,369	.....
Tri County	32	24	....	8	38,472	32,788	.....	5,684
Tuscola	35	26	....	9	34,913	33,320	.....	1,593
Washtenaw	155	209	54	....	44,714	49,520	4,806	.....
Gratiot-Isabella-Clare	45	48	3	....	51,849	56,524	4,675	.....
			343	164	2,278,582	2,490,767		

SUMMARY

22 Counties show decrease number of doctors and decrease in population
17 " " increase " " " " increase " "
3 " " " " " " " decrease " "
5 " " decrease " " " " increase " "
3 " " no change " " " " " " "
3 " " " " " " " decrease " "
53

Total increase .....343 doctors
" decrease .....164 "
Net change .....179 "
Increase in population, 212,185.

TABLE 9

VILLAGES HAVING DOCTORS IN 1925 AND NOT IN 1914

Villages having doctors in 1925 and not in 1914.
Clawson—Oakland County.
Bergland—Ontonagon County.
Deford—Tuscola County.
Total, 3.

A general and detailed picture of Michigan by counties showing the number of doctors, populations and increases and decreases is found in Table 11.

The above data does not include Wayne County. The net summary of the table indicates that there has been an increase in the number of doctors, namely one hundred seventy-nine. There has been a net increase in population totaling 212,185. Where ever there has been a marked increase in population a marked increase in the number of doctors is recorded and vice versa where there has been a marked decrease in population there follows a marked decrease in resident physicians. There appears to be no definite indication of direction of movement where the change is not appreciable. This condition may exist, due to the fact that a so-called point of sufficient service has or has not been attained. Those counties that show marked increases are, Calhoun, Genesee, Ingham, Jackson, Kalamazoo, Kent, Muskegon, Oakland, Saginaw. Those showing marked decreases are, Antrim, Charlevoix, Emmett and Cheboygan, Houghton and Barga, Manistee, the group in the central northern portion including six counties, Otsego, Montmorency, Crawford, Oscoda, Roscommon and Ogemaw, Osceola-Lake, Wexford, Kalkaska and Misaukee. The term marked increase or decrease is variable with the population, in most instances it ranges from five to forty thousand where there are increases and from fifteen hundred to twenty-one thousand where there are decreases.

CONCLUSIONS

The following conclusions appear to have facts warranting their assumption:

1. There is one doctor to 911 people in the state and one to 613 in Detroit. Evidencing no great deficiency of medical men.
2. There are a less number of doctors in rural hamlets, while there is an increase of doctors in towns of population from 2,500 to 10,000 or more. It may be assumed that by reason of the automobile and improved roads medical attendance is as attainable, if not more so, than in 1914.
3. The average age of the doctor has increased—the greater number is between 45 and 55. Educational training consumes more time and can be credited for this fact.
4. There is a normal natural increase in the number of doctors and well conforms to population increase. The ratio of doctors to population conforms to population changes.
5. Michigan is not suffering from lack of doctors, nor is their availability hampering or inconveniencing the people.
6. The young doctor chooses the village for his field of service proportionately as readily as the city, providing there is a reasonable assurance of a fair living and remuneration to repay expenses incurred in securing his training.

ANNUAL MEETING

In December there was mailed to each member a referendum requesting the recording of desires as to what type of a program should characterize our annual meeting and also whether our annual meeting should be held in the spring or fall of the year. We impart the following tabulation of the cards returned:

RESULT OF REFERENDUM VOTE:

Number of cards returned	1,133
The vote by propositions—	
Proposition 1. I vote for the holding of a One Day of Section meetings and One Day of General Scientific meetings	404
Proposition 2. I vote for the re-establishing of separate Section Meetings for the two days of the Annual Meeting as has been customary in the past	184
Proposition 3. I vote for the holding of combined General Scientific meetings on the two days of the Annual Meeting as was carried out at the Muskegon, 1925, meeting	568
Proposition 4. I vote for the holding of the Annual Meeting: In the fall	599
In the spring	455
Blank Votes	21

Guided by this expression on the part of members interested in recording their desires, the Council has determined to perfect the following arrangements for our 1926 annual meeting: 1. That Lansing be the place of meeting provided that the assurance is obtainable that the new hotel will be able to provide accommodations. 2. The dates to be Sept. 14, 15 and 16. 3. The scientific program to afford one-half day for section meetings and three general clinical meetings.

REPORT ON COURSES WHICH MIGHT BE GIVEN BY COLLEGES AND UNIVERSITIES IN ORDER TO GIVE WOMEN AN ELEMENTARY KNOWLEDGE OF THE CARE OF THE SICK

This report grew out of a report made by this Committee to the last meeting of the Joint Committee on Public Health Education bearing upon the available supply of nursing service in the state of Michigan. From that report it appeared that the available supply of

nursing service was considerably below the demand and it appeared probable that no very extraordinary increase in the supply of such service was to be expected. It is widely believed that a good deal of the nursing service now desired might be eliminated if the women of the community were more familiar with the milder manifestations of illness and the care of persons not seriously ill. Obviously such a suggestion touches the problem of the general education of women.

President Little has pointed out on various occasions that the general scheme for the education of women in colleges and universities has been developed along lines entirely similar to those made for the education of men. It seems at least reasonable to believe that if the present plan of college education is sound for men it is probably not sound for women except in those cases where they plan to continue their studies in professional fields and compete on equal terms with men. Without venturing any opinion as to the differences which may exist between the minds of men and women, it seems fairly certain that important differences do exist and should be taken into account. This proposition, of course, involves two other propositions if a differentiation of the curriculum is to be made: one concerning itself with methods of approach and presentation, the other concerning itself with subject matter.

No matter what the future may develop as to the share of the world's work which is done respectively by men and by women, it may be confidently asserted that women will continue to be in close contact with sick people—especially with children to a considerably greater extent than men. From this it would appear to follow that their general training might well include a broader knowledge of the origin, nature and behavior of mankind, both in health and in disease, than would be necessary for the average man. Such training cannot, we think, wisely be undertaken in the school years and more properly belongs in the work of colleges and universities leading to the degree of "Bachelor of Arts."

Courses planned to meet this need should include (1) a broad course in the structure and function of the human body, being a survey of the subjects of anatomy and physiology; (2) a course covering the principles of physics and chemistry; (3) a course in hygiene and sanitation; and (4) a considerable course in the elementary care of the sick. This latter course can, we think, be given only in a general hospital and should consist chiefly of demonstration and practical work in contact with the sick.

In addition to these courses there might well be offered, perhaps as electives, one course dealing with the principles of heredity and genetics and one dealing with the development of manners and customs and touching upon the causes of human behavior. These courses will need to be taught exceptionally well if they are to produce the desired result and will occupy perhaps one-fifth to one-sixth of the hours now required for the degree of "Bachelor of Arts."

It appears to us important that all of the four specified courses should be given if any step is to be taken in this direction, the first three courses constituting only the foundation upon which the more important course in the elementary care of the sick is based. This course cannot be safely or satisfactorily given without some foundational knowledge as a basis but is the real goal toward which this plan is headed. We do not think that this final course can be satisfactorilly taught outside of a hospital and this will, therefore, require colleges and universities undertaking this work to effect some affiliation with a general hospital in those cases in which they have no satisfactory hospital under their own control.

In order to show in more detail the ground which we think these courses should cover, a somewhat fuller statement of them is appended.

Course 1—"The Structure and Function of the Human Body;" four hours. This course should cover the essential features of human anatomy and physiology. It should present some discusion of histology and embryology and in the field of gross anatomy, should deal with larger, rather than finer structures. For instance, in the teaching of anatomy of bones and muscles, only the larger groups should be dealt with. The course should be profusely illustrated with models, lantern slides, etc. It shoud be completed in one semester and require no laboratory work.

Course 2—"Principles of Natural Science;" four hours. This course should survey in general terms the fields of chemistry and physics. It need not be required of students who have taken courses in either of these subjects in the college or university. Like Course 1, it should attempt to deal with broad general principles in the fields of physics and both organic and inorganic chemistry. The teaching should be lectures profusely illustrated, and by demonstrations.

Course 3—"The Principles of Health and Sanitation, General and Special;" three hours plus two hours. This course should cover the field commonly referred to as "hygiene." Here should be included elementary bacteriology, a discussion of food, dress, exercise and probably first aid. A definite

amount of time should be devoted to the principles of sanitation including ventilation, sewage disposal, etc. The teaching in this part of the course should be by illustrated lectures and demonstrations.

The portion of this course to which an additional two hours has been assigned should deal with what may be called "special hygiene;" namely, such portions of the field of hygiene as are most essential to women. This should deal with the questions of pre-natal hygiene, post-natal hygiene and the hygiene of children, in which latter field some discussion of the more common diseases of children should be introduced.

Course 4—"The Elementary Care of the Sick;" six hours. The purpose of this course is to give an elementary knowledge of the care and management of illness in the home. It should discuss such questions as the proper surroundings for the sick, the early recognition of the common symptoms of illness, food for the sick and the care of the more common ailments, particularly those of children and the aged. It should aim to give a knowledge of simple nursing procedures and first aid treatment such as can be satisfactorily given at home. It should be taught by the staff of the Nursing School and given at the hospital.

Elective Courses: 1—"Man;" two hours. This course should undertake to deal with the principles of heredity and genetics as they are essential to a sound knowledge of human development and behavior. It should attempt in a brief period to lay a foundation in these subjects without pursuing them in great detail.

2—"A Course in Human Behavior;" two hours. This course should introduce some of the topics ordinarily considered under anthropology and ethnology but only in very general form. It should also invade part of the field now covered in some of the courses in psychology dealing with human instincts as they effect human behavior. It should be taught by lectures.

Throughout this description of courses the phrase "hours" refers to "semester hours" as this term is ordinarily used in the catalogues of colleges and universities. It should be understood that a "semester hour" means one hour of lecture, demonstration or quizz and that two hours, and occasionally three hours, of laboratory work are required to fulfill the requirements of one semester hour. This would become important only in the course dealing with the care of the sick since in that course there would be considerable practical work and considerably more than six hours a week of actual time would be involved.

Hugh Cabot,
W. T. Dodge,
F. C. Warnshuis.

ENLARGED PROGRAM FOR MATERNAL WELFARE

The Joint Committee on Maternal Welfare, representing the American Association of Obstetricians, Gynocologists and Abdominal Surgeons, the American Gynocological Society and the American Child Health Association, has organized a nationwide propaganda to present the appeal for better obstetrics, more definite prenatal care and rigid asepsis. The committee is about ready to launch the year's work for 1926, and hopes to present a program on maternal welfare in every Medical Society in the state.

There is to be a group of lecturers whose names are to be given by the state chairman to the secretary of the State Society, from whom secretaries of district and county societies may obtain information and upon request a speaker will be furnished for any meeting.

Originally, it was planned to include in the Joint Committee, representatives of the Section of the A. M. A. on Obstetrics, Gynecology and Abdominal Surgery, but owing to the annual change in the personnel of the officers, and to the fact that no provision can be made for the financial support of a committee, this was thought by the officers of the section to be impracticable. The organization of the committee is now comprehensive throughout the country, and is already beginning to function in an effective manner.

One of the most vital problems which the profession must solve is that of the early reduction of the risk rate to mother in childbirth. There can be no question as to where responsibility lies for the vast majority of cases of puerperal sepsis and eclampsia, which are the two outstanding elements in maternal morbidity and mortality. It lies largely with the medical profession itself. The remedy for this condition is to be found, also, within our own ranks and can be expressed in one word—education.

It is believed that the program outlined by the joint committee will reduce by fifty per cent our risk rate to mothers in childbirth.

G. Van Amber Brown, M. D.,
Chairman of the State Committee.

Editorial Comments

Yes, your 1926 dues are payable. Send your check to your County Secretary today.

The Congress of the College of Physicians that is to hold its Clinical Meeting in Detroit this month brings to our very door an opportunity for gaining personal profit. If in any way possible we urge that you attend these Clinical Meetings.

We direct your attention to the article in this issue which imparts a statistical study of the distribution of doctors in Michigan. The tables cover a ten year period and reflect some very interesting facts. We felt that this study would intelligently answer the much worn out cry of lack of doctors in rural communities. As far as Michigan is concerned we feel that no community is without satisfactory and fairly available medical protection.

We are advised to withhold making income tax returns until the reductions proposed are enacted. Officers of the American Medical Association are aggressively active in the endeavor to secure allowances for physicians for expense entailed in attending medical meetings, post-graduate study, etc. We advise that you watch the Journal of the A. M. A. for the latest authentic advice and rulings, which the Editor promises to impart as soon as action becomes official.

Our minimum program for County Societies has been adopted by practically every county unit. Its value has attracted the attention of other states. Our concern now is that it be carried out to its fullest limits. This means work by officers and program committees. Is this work being carried on in your county? There should be no hesitancy or delay. Start now and keep going. Your Society will profit and your members will exhibit increased interest. Here is an opportunity for real achievement.

Moynihan, in his recent revised work on abdominal operations imparts the following pertinent conclusion: "Surgery today is being practiced by too many light-hearted and incompetent surgeons, who have neither sought in due service, to acquire a mastery of their craft, nor have learned, from experience gained by long association in hospital work, when an operation should be done, when left un-done, how made safe, how made to fall lightly upon a patient already afflicted, it may be, by mental, no less than physical distress. Of all the temples in the world none is more sacred than the operation theatre." It is well to ponder over this thought.

The Journal will gladly place at the disposal of our members the information it possesses as to safe financial investments. In this day there exists an army of stock and bond salesmen who endeavor to sell securities of every type. It is difficult to determine the sound, safe investments. It is very easy to fall for worthless bonds, or those of but fourth or fifth rate value. Excellent opportunities present for safe and profitable purchases. Doctors are known to be careless when it comes to investing their surplus funds. Other physicians, overly cautious, are receiving very low interest rate returns whereas their interest earnings may readily be doubled by re-investment in securities that are sound and paying larger rates. The Journal seeks to serve its readers in making available dependable investment advice.

The question of public education by means of newspaper publicity is receiving serious thought by the Council, the Joint Committee and representatives of the University. Just which, if any plan, will be adopted, we cannot state at this time. As imparted, in a previous issue, Texas is engaged in an advertising plan, which, however, calls for expenditure of considerable funds. Indiana has been pursuing a course of releasing to the press prepared reading articles. New York has newspaper releases. Illinois is conducting meetings, educational exhibits, etc. What is the most effective means is difficult to determine. It would be extremely ill advised to initiate such an educational movement unless a well thought out plan is adopted. Discussion is invited and we will welcome your aid in solving the question.

The Tenth Annual Congress on Internal Medicine will be held at Detroit and Ann Arbor, week of February 22-27, 1926.

The Congress is devoted to amphitheatre, bedside and clinical laboratory demonstrations as well as to symposia dealing with modern phases of internal medicine. Distinguished guests from abroad, Canada and the leading clinics of the United States will occupy prominent places on the program. Four days will be devoted to the work at Detroit and on one day, the Society will be the guest of the University of Michigan at the newly opened eleven hundred bed University Hospital.

All physicians, who are interested in internal medicine and who are members in good standing of their local and national societies are cordially invited to attend the Congress.

Hotel headquarters will be at the Book-Cadillac in Detroit. Information regarding reduced railroad rates, program, hotel accommodations, etc., may be secured from the Secretary-General.

Mal-practice threats, causing claims and suits, are the bane of professional existence, but also injuring his reputation and business in his community and brings the entire profession into disrepute.

The situation regarding this condition of so-called blackmail, has assumed alarming proportions and history in these matters indicates no reduction in 1925, but rather a further increase. Thus denoting that it is important that some immediate action be taken.

The first necessary step, which will undoubtedly be the quickest to furnish relief, is through co-operation between professional men themselves, the Medical Legal Committee of our Society and the Insurance Organizations dealing in Mal-practice Indemnity and Defense. Through this co-operation can be, in a very high degree, eliminated a large majority of such claims and suits.

The first important step in this co-operation consists of prompt notice to our Medical Legal Committee and the Insurance Company, advising of any event or occurrence arising that may lead to a claim or suit. Such notice to be followed by "immediate investigation" of the facts. Thus by "being on the ground early" can be ascertained the true facts for use as conclusive evidence in the event of trial of a case in court or the compromise of same. If purely blackmail, then prompt attention should be taken to arrest such blackmail.

Co-operation of this character will undoubtedly exercise a most beneficial effect upon the entire situation.

Official Minutes of the Midwinter Session of the Council, Michigan State Medical Society Held at Ann Arbor, Jan. 14 and 15

FIRST SESSION

The first session of the midwinter meeting of the Council of the Michigan State Medical Society was called to order in the Michigan Union, Ann Arbor, at 3 p. m., on January 14, 1926, by Chairman Jackson. There were present Councillors Ricker, Jackson, Stone, Bruce, Randal, LeFevre, Burke, Charters, Green, Powers, Corbus, Van Leuven, MacKenzie, Burke, the president of the State Society, C. G. Darling; Executive Secretary, Harvey George Smith, and Secretary-Editor, F. C. Warnshuis.

1. The minutes of the last meeting of the Council were approved as read.

2. The Secretary presented his Annual Report, which was as follows:

SECRETARY-EDITOR'S 1925 ANNUAL REPORT

To the Council,
Michigan State Medical Society.

Gentlemen: As your Secretary-Editor, I am submitting the following as my annual report for the fiscal year, ending December 31st, 1925.

FINANCE

The following is the certified audit of the Society's financial condition:

January 4, 1926.

To the Council of the Michigan State Medical Society,

Dr. F. C. Warnshuis, Secretary,
Grand Rapids, Mich.

Gentlemen: Pursuant to request, we have audited the books of account and record of the Michigan State Medical Society for the period from December 1, 1924, to December 26, 1925, and submit herewith our report.

The scope of our examination consisted of a verification of the assets and liabilities of the Society at December 26, 1925, as well as a comprehensive test check of the recorded cash transactions, operating accounts, and other records for the period named as commented more fully upon throughout the text of this report.

The assets and liabilities at December 26, 1925, are set forth below in condensed form and compared with those at November 30, 1924:

ASSETS

	Dec. 26 1925	Nov. 30 1924	Increase *Decrease*
Cash	$ 386.00	$ 15.97	$ 370.03
Accounts Receivable	1,600.34	1,386.21	214.13
Securities Owned	8,750.00	4,000.00	4,750.00
	$10,736.34	$5,402.18	$5,334.16

LIABILITIES

Accounts Payable	$ 102.17		$ 102.17
Advance Payments	397.05	73.25	323.80
Due to Defense Fund	31.00	199.50	*168.50*
Net Worth	10,206.12	5,129.43	5,076.69
	$10,736.34	$5,402.18	$5,334.16

Cash on Deposit at December 26, 1925, was verified by direct correspondence with the depositary bank. We traced the recorded cash receipts, for the period under audit directly to the bank account and thoroughly tested the disbursements therefrom by examination of offcially signed cancelled bank checks, invoices or other data on file.

The total of Accounts Receivable at December 26, 1925, was proved by trial balance of the individual accounts, but it was not deemed practicable to attempt to verify the accuracy of the book records by corresponding with the recorded debtors. As part of our work, we analyzed these unpaid balances as to date of charge and have classified them as follows:

Month of Charge	For Reprints	Professional Announcements	For Advertising	Total
December, 1925	$26.50	$343.45	$ 702.03	$1,071.98
November, 1925			27.50	27.50
October, 1925			29.00	29.00
September, 1925			32.00	32.00
July, 1925			32.00	32.00
August, 1925			32.00	32.00
Prior to July 1, 1925		137.50	238.36	375.86
Total	$26.50	$480.95	$1,092.89	$1,600.34

The Securities Owned, which are stated at cost, were verified by inspection.

Full provision has been made, as far as we could ascertain, for all known liabilities of the Society at December 26, 1925.

In accordance with the previous policy of the Society, unpaid dues or subscriptions at December 26, 1925, have not been set up as assets, but will be taken into income when received.

The expenditures for office furniture and fixtures during the current period have been charged against expense, as it has been the policy of the Society not to maintain an asset account for such items.

We have prepared and submit as a part of this report a Statement of Income and Expense for the fiscal period ended December 26, 1925.

We Hereby Certify that we have audited the books of account and record of the Michigan State Medical Society for the period from December 1, 1924, to December 26, 1925, as herein outlined, and that, in our opinion, based upon the records examined and information obtained, the accompanying Statement of Assets and Liabilities is drawn up so as to set forth the correct financial condition of the Society at the date named, and that the relative operating statement is correct.

Very truly yours,

ERNST & ERNST.

(SEAL)

STATEMENT OF ASSETS AND LIABILITIES
MICHIGAN STATE MEDICAL SOCIETY
December 26, 1925

ASSETS

CASH—		
On Deposit—The Old National Bank		$ 386.00
ACCOUNTS RECEIVABLE—		
For Reprints	$ 26.50	
For Professional Announcements	480.95	
For Advertising	1,092.89	1,600.34
SECURITIES OWNED—		
United Light & Power Company 5½%—1959	$2,000.00	
Federated Utilities Company 6%—1945	2,000.00	
Community Power & Light Company 6½%—1933	2,000.00	
Hudson Valley Coke & Products Corporation 7%—1930	1,000.00	
Government of the Argentine Nation 6%—1959	1,000.00	
National Electric Power Company 6%—1945	1,000.00	
	$9,000.00	
Less: Allowance to Reduce Cost	250.00	8,750.00
		$10,736.34

LIABILITIES

For Expenses		$ 102.17
ACCOUNTS PAYABLE—		
ADVANCE PAYMENTS—		
For Reprints, Advertising and Dues		397.05
DUE TO LEGAL DEFENSE FUND—		
For Dues Collected		31.00
NET WORTH—		
Balance—Dec. 1, 1924	$5,129.43	
Net Income—Operation for the Period from Dec. 1, 1924, to Dec. 26, 1925	5,076.69	10,206.12
		$10,736.34

(NOTE A)—This Statement is subject to the comments contained in our "Certificate" included in and made a part of this report.

INCOME AND EXPENSE

MICHIGAN STATE MEDICAL SOCIETY

For the Period from December 1, 1924, to December 26, 1925

INCOME—		
Journal Subscriptions and Sales	$ 7,645.95	
Reprint Sales	1,119.16	
Advertising Sales	7,856.84	
Professional Announcements	705.68	
Membership Dues	16,512.95	
Interest from Investment Bonds	527.05	
Profit on Sale of Investment Bonds	200.00	
Sundry Accounts Written Off	2.25	$34,569.88
EXPENSES—		
Journal Expense	$11,064.79	
Reprint Expense	1,289.65	
Council Expense	740.73	
Expense of Delegates to A. M. A.	402.92	
Annual Meeting—Net	870.68	
Post Graduate Conferences	3,316.64	
Legislative Expense	173.71	
Executive Secretary	5,281.80	
Editor's Salary	3,225.00	
Stenographer	1,526.50	
Postage and Stationery	225.00	
Office Rental and Expense	615.99	
Sundry Society Expense	759.78	29,493.19
NET INCOME		$ 5,076.69

It is a pleasure to report an increase in our present worth to $10,206.12. I am of the opinion that we should not build up a larger reserve fund. Such a fund in a reasonable amount is necessary, especially as the plans under consideration will require a larger working capital. This was the first year of increased dues. The year also witnessed a very marked enlargement of our scope of activity. What the expenses would be could only be estimated. Consequently it required constant alertness and scrutiny to prevent excessive expenditures and necessitated continued calculation and estimation.

The net expense of our Annual Meeting was $870.68. Considering the expenses entailed by reason of our Annual Meeting clinical program, which involved unusual traveling expenses for speakers, we pride ourselves that the sale of exhibitors' space permitted the actual cost of that meeting to remain at such a reasonable amount. Interest earnings of $905.09 was made possible by connections established by your secretary that resulted in this exceptional interest earnings.

SOCIETY

Never has our State Society, with its component county units, shown such life and activity. This is due to several factors: first, our Councillors have revealed effective interest and activity in the work that is being done in their districts. Second, our County Society officers have contributed largely of their time to society work. Third, our Post-Graduate Conferences have aroused a spirit of cordiality and willingness to achieve. As our plan of work became known, as our goal was recognized, officers and members enlisted into the ranks of activity with the end result that we are acquiting ourselves of the responsibilities that rest upon us and so our progress is one of great satisfaction because we are manifestly recording desired achievements. It but remains for us to extend this interest, to continue the work along the lines established to push on with added zeal. In doing so, 1926 will witness still greater results.

When the action was taken raising our dues to $10.00 per member, there was some fear lest the Society lose a goodly number of members. It is therefore a matter of great gratification that we can report a membership of 3,013, which represents a gain of 119 over 1924. It is now very evident that as we enhance the value of membership our members will support, by personal and financial means, all of the Society's activities. The following reveals our

County Society membership and numerical strength:

County	Active 1924	Active 1925	Delinquent 1924	Delinquent 1925	Dead
Alpena	15	20	6	1	1
Antrim-Charlevoix-Emmet	7	13	5	1	..
Barry	12	13	3	2	..
Bay	58	61	6	3	1
Benzie	2	1	6	..	1
Berrien	46	32	11	2	..
Calhoun	93	102	24	1	1
Branch	....	12	....	2	..
Cass	7	8	....	..	..
Cheboygan	1	4	10	..	..
Chippewa-Luce-Mackinac	21	21	8	2	..
Clinton	12	13	11	1	..
Delta	26	24	5	1	..
Dickinson-Iron	7	15	15	2	..
Eaton	19	23	17	..	1
Genesee	115	110	31	7	1
Gogebic	18	22	13	2	..
Grand Traverse	22	24	10	2	1
Gratiot-Isabella-Clare	31	27	11	4	1
Hillsdale	26	21	6	2	..
Houghton	38	40	26	2	3
Huron	7	11	15	1	..
InghamIngham	77	92	6	4	1
Ionia	16	17	15	1	..
Jackson	65	76	....	2	..
Kalamazoo	119	111	9	2	4
Kent	178	183	12	10	5
Lapeer	16	21	4	2	..
Lenawee	22	31	4	..	..
Macomb	26	33	3	..	..
Manistee	10	10	1	1	1
Marquette-Alger	34	35	3	2	..
Mason	2	8	6	1	..
Mecosta	19	19	1	1	..
Menominee	11	10	....	..	..
Midland	6	7	....	..	..
Montcalm	17	14	....	1	1
Monroe	26	25	....	2	..
Muskegon	63	55	5	1	1
Oceana	....	7	....	2	..
Newaygo	13	9	....	3	..
Oakland	56	74	3	4	..
O.M.C.O.R.O.	9	7	....	2	..
Onotnagon	6	7	2	..	..
Osceola-Lake	....	....	5	..	..
Ottawa	27	29	5	2	..
Saginaw	48	61	21	5	..
Sanilac	12	13	4	1	..
Schoolcraft	5	5	1	1	..
Shiawassee	28	29	1	3	..
St. Clair	47	49	8	3	..
St. Joseph	16	19	4	3	..
Tri	19	18	4	1	..
Tuscola	20	24	5	1	2
Washtenaw	138	110	9	18	1
Wayne	1160	1188	84	72	6
	2894	3013	464	189	33

POST-GRADUATE CONFERENCES

It is scarcely necessary to comment upon the intensive value of our Post-Graduate Conferences of which 24 were held during 1925. Councilors and members are familiar with the success that has attended upon them. We are deeply impressed with their value. They will be continued during 1926 with added features. It is recommended that your executive committee together with the council's committee on county society work be authorized to develop and institute these new features and continue these district meetings. It may well be noted that our society has blazed a trail that we must concede is solving an organizational and professional problem in a manner which we feel excells that of any other state society. We are rendering to our members a service that compensates membership. We are enhancing their daily practice and we are cementing a public relationship and respect that commands public confidence and opinion. The public is accepting our messages with renewed interest.

SECRETARIES' CONFERENCE

Experience has revealed that the annual conference of county secretaries enhances our work and enables county societies to understand the scope of our endeavor. It is therefore recommended that your executive committee be authorized to arrange for such a conference at a time most convenient during the present year.

ANNUAL MEETING

An invitation has been received to hold our 1926 annual meeting in Lansing with the Ingham county society as our hosts. It is incumbent upon the Council to designate the time and place for our annual meeting to supervise the details. For your information and guidance, the following is the result of the referendum vote that was submitted to our members during December, 1925:

RESULT OF REFERENDUM VOTE:

Number of cards returned	1,133
The vote by Propositions—	
Proposition 1. I vote for the holding of a One Day of Section meetings and One Day of General Scientific meetings	404
Proposition 2. I vote for the re-establishing of separate Section Meetings for the two days of the Annual Meeting as has been customary in the past	184
Proposition 3. I vote for the holding of combined General Scientific meetings on the two days of the Annual Meeting as was carried out at the Muskegon, 1925, meeting	568
Proposition 4. I vote for the holding of the Annual Meeting: In the fall	599
In the spring	455
Blank Votes	21

THE JOURNAL

The Journal during the year established its intrinsic value. The reading matter consisted of 694 pages representing an increase of 126 pages. The editorial labor is time consuming and requires daily detailed supervision. Never have we had so many favorable commendations and expressions of appreciation from our members.

The advertising revenue of $8,607.52 is the largest advertising earning in the Journal's history. It exceeded our 1925 budget estimate by $2,607.52 and the 1924 revenue from advertising by $2,806.42. The total earnings of the Journal was $16,295.97 and total cost was

$14,477.79, representing a net profit for the Journal of $1,818.18. These figures reflect the editorial business supervision which cannot be exhibited by words nor can it be recorded by the number of hours devoted to the work.

Editorially we again refer the Council and our members to the twelve issues for appraisal as to the endeavor that was made to maintain a standard that was consistent with the profession's prestige.

CONCLUSION

This report witnesses fifteen years of service to the society and its members. Looking back, it is but a few years, while if one looks ahead, it represents years that are fraught with potent, but still dormant, possibilities. The work has not been void of personal gratification for the consciousness has ever been mine that I have sought our society's best interests and welfare first and not individuals. It has been a service not without personal and financial sacrifice. It has, however, been contributed unstintedly and as an earnest desire to serve my profession. I am profoundly grateful for having been privileged to so do.

Respectfully submitted,
F. C. Warnshuis,
Secretary-Editor.

The chairman referred the several sections of the secretary-editor's annual report to the several reference committees of the council for report at the next meeting on Friday morning.

THE MEDICO-LEGAL REPORT

In the absence of the Chairman of the Medico-Legal committees, Councilor Charters submitted the following annual Medico-Legal report to the committee:

To the Council of
The Michigan State Medical Society.

Gentlemen:

The year 1925 has been uneventful in the work of this committee, with a slight lessened number of trouble cases, there being thirty-one in 1925, thirty-four in 1924, thirty-nine in 1923, and thirty-seven in 1922. These figures suggest an abatement of the mal-practice menace when considered from the viewpoint of a gradual increase in membership. Suits involving eleven members were tried during 1925 and all won by us, except that in one case settlement was made by the insurance company during the progress of the trial. This case showed a very bad result following fracture, due to nerve injury and muscle atrophy, and the settlement by the insurance company was undoubtedly wise. There are several bad cases likely to reach trial during 1926, one sponge in the abdomen, one filiform bougee broken off in the bladder and several bad fracture cases. We are also obligated by a referendum vote of the council to defend a libel case involving two members. While libel or slander is in no sense civil malpractice, it has always been the policy of this committee to defend cases that even indirectly arise from the practice of medicine, so far as practicable. It should be understood, however, that in a libel case distinction has to be made between rumor and fact, and that it is not possible to successfully defend men who have failed to make this distinction. We have had one such experience, defending by order of the council and it is sincerely hoped that this one will be the last. Our finances are in such excellent condition that the members of the council undoubtedly felt justified in undertaking the defense of the pending case. We expended last year in attorney fees and court expenses $3,353.70, but have a cash balance of $6,309.34.

Yours very truly,
Chairman Medico-League Comimttee,
F. B. Tibbals,
August McLean,
William J. Stapleton, Jr.

The Council,
Michigan State Medical Society,
Gentlemen:

To the request of your Executive Committee that the funds of the Medico-Legal Committee be audited, I replied at some length to the Secretary-Editor, explaining that I had never handled any cash, that the sum total that can possibly be misused consisted of a few interest coupons. Hence, I felt that a commercial audit was a waste of money and suggested that any member of the council can run over the stubs in the checkbook and make an audit in ten minutes. As I will not be present at the meeting of the council, I would suggest that, if the Council still feel that an audit of the Medico-Legal Fund should be made, the councilor from this district be authorized to select an auditor and have him audit the account at the Peoples State bank. The fund has always been kept in this bank. The canceled checks have all been retained by them. The deposit can be checked through the treasurer. The only books I have ever kept have been notations on the check stubs of receipts and disbursements.

Yours very truly,
F. B. Tibbals.

No. 3. Councilor Randal, who was chairman of a special committee, appointed at the Muskegon meeting to submit names of several appointees for the State Board of Registration in Medicine to the governor, reported that his committee had made such presentation to the governor, further reporting that the governor had reappointed the retiring members of that board.

The report of the committee was accepted and the committee discharged.

No. 4. On motion of Councilor Bruce, supported by Baird, the minutes of the several meetings of the Executive Committee were approved by the council.

No. 5. On motion of Councilor Randal, supported by Van Leuven, a request was made to so amend our charter in order that a larger reserve or endowment fund might be acquired and held by the society. This motion was referred to the finance committee for consideration.

No. 6. President Darling personally addressed the Council upon the work and activities of the society and commended the activities that were being manifested in our organizational work.

No. 7. The council adjourned at 5:00 p. m. to reconvene at 9:00 a. m. on Friday morning.

SECOND SESSION

The second session of the Council was a special one, also held in the Union at 6:30 p. m., at which time the following were the guests of the Council: President Little of the University of Michigan, the Dean and members of the faculty of the Medical Department of the University of Michigan, the Dean and several members of the medical faculty of the Detroit College of Medicine and Surgery, the State Board of Registration in Medicine was represented by Doctors Connor, Kelley, McLaughlin, Stone, LeFevre and O'Neil. The State Department of Health was represented by Doctors Olin and Kiefer. The State Hospital Association was represented by Dr. Babcock of Detroit and the president of the State Society and the members of the Council.

The purpose of this meeting was for the discussion of the inter-relation of these several organizations that are developing the medical progress of the state. The purpose being further to obtain, if possible, a basis for inter-allied activity, co-operation and the advancement of the inter-relating interests. The meeting was presided over by Chairman of the Council, Dr. J. B. Jackson and the following participated in the discussion of the motive that inspired this meeting: President Darling, Dean Cabot, Dean MacCracken, ex-president, A. P. Biddle, President Little of the Univeristy, Dr. Olin, Dr. J. D. Bruce, Dr. LeFevre, Dr. Babcock and Dr. Corbus.

During the course of the discussion Dr. J. D. Bruce moved that the chairman appoint a committee of three to which were to be added the president of the university, president of the State Medical Society, president of the State Board of Registration, deans of the medical schools, which committee was to be charged with the duty of investigating, developing and submitting a plan for the carrying out of the several subjects that had been submitted during the discussion and to obtain the purposes for which this meeting was held. This motion was seconded by President Darling and carried unanimously.

It was moved by Dean Cabot, supported by Dr. Biddle, that a meeting of this same group of representatives be held at the time of the next midwinter meeting of the Council.

The meeting adjourned at 10:30 p. m.

THIRD SESSION

The third session of the Council was held in the Union at 9:00 a. m. on Friday, Jan. 15, 1926, and was called to order by Chairman Jackson. The following were present: Councilors Stone, Charters, Burke, Ricker, Powers, MacKenzie, Baird, Bruce, Van Leuven, Corbus, Randal, Green, LeFevre, President C. G. Darling, Executive Secretary Harvey George Smith and Secretary-Editor F. C. Warnshuis.

No. 1. The committee on county society work reported as follows: The committee called the attention of the Council and members to the Post-Graduate Conferenhe work that had been conducted during the past year and which was commented hpon by the Secretary-Editor in his anndal report, the meetings of which, as well as the scope of the work had been pdblished in each isue of The Journal. The committee commended the splendid result that had been obtained and special appreciation was extended for the co-operation that had been accorded to the work by the officers and members of county societies. The committee recommended that the work be conducted during the coming year and that the added features proposed by the executive committee and the tentative plans that had been submitted be approved in order that our members might be the recipients of the benefits that will accrue from this feature of organizational work.

No. 2. The committee considered the advisability of re-districting the Councilor districts of the state and requested the secretary to properly tabulate the proposed plan of re-districting and to submit a copy of each Councilor for their further comment and when approved that the executive committee of the Council will submit the same to the next session of the House of Delegates for their approval.

The committee notes with very great satisfaction the present status of our membership and approfes the Secretary's comment thereupon and urges that membership in our society be compensated to the individual members by increasing individual benefits. The committee feels that as the Society is concerned with the personal interests and professional progress of its members, their

whole-hearted support and intensified activity will be manifested.

B. R. Corbus.

On motion of Councilor Stone, supported by Charters, the committee report and recommendation were adopted.

FINANCE COMMITTEE

The finance committee report was submitted by Chairman LeFevre.

(a) The Finance Committee recommended the adoption of the following budget for 1926:

MICHIGAN STATE MEDICAL SOCIETY
PROPOSED BUDGET, 1926

ESTIMATED INCOME:		
3,000 Members at $10.00		$30,000
EXPENDITURES:		
To Medico-Legal Committee, 3,000 at $2.00	$6,000	
Journal Subscription, 3,000 at $2.50	7,500	
Salary Executive Secretary	5,500	
Expenses—Executive Secretary	500	
Stenographic Service	2,500	
Rent, Light, Telephone and Office Expense	750	
Annual Meeting	500	
Committee Expenses	500	
Printing and Postage	300	
Council Expense	1,000	
Delegates to A. M. A.	350	
Joint Committee Education	500	
Contingent Fund	600	
TOTAL		$30,000

JOURNAL BUDGET

INCOME:		
3,000 Subscriptions	$7,500	
Advertising Sales	7,500	
TOTAL		$15,000
EXPENSE:		
Printing and Mailing	$11,500	
Wrappers	225	
Editor's Salary	3,000	
Reserve	275	
TOTAL		$15,000

(b) It is recommended that the Medico-Legal Committee become aggressively active in defense of the Battle Creek members who were sued for libel.

(c) The committee recommends that the expenses of our delegates to the American Medical Association meeting be limited to the railroad fare and hotel room.

(d) The committee recommends that the Secretary be instructed to take the necessary steps to secure the amendment of the Society'scharter in order that reserve and endowment funds may be held to a greater amount than now authorized under the charter.

(e) The committee finds that the tabulated statements of the expenses and funds of the Society are accurate and kept in a commendable business-like manner. The assurance is manifest that the funds of our Society are being handled and disbursed with proper safeguard and care. The committee desires to extend the Society's thanks and appreciation to the Executive Committee, Chairman of the Medico-Legal Committee, Executive Secretary, and to the Secretary-Editor fofthe excellent manner in which they have discharged their official duties for the benefit of our members.

Signed by the committee,
George L. LeFevre,
F. S. Baird,
B. F. Green.

The several features of the finance committee report was the subject of careful and detailed discussion. The items of the budget were carefully considered and the amounts stated were scrutinized with the view toward causing them to comply with the financial needs of the society. On motion of Councilor Bruce, supported by Councilor Stone, the report of the finance committee with its recommendations was adopted.

REPORT OF PUBLICATION COMMITTEE

The report of the publication committee was presented by Councilor Stone. Attention was drawn to the editor's comment on the Journal. Approval was expressed for the fine type of Journal that is being issued from month to month. The committee draws particular attention to the advertising sections of the Journal and points out that this income makes possible the type of Journal that is being issued and that were it not for this income, a larger assessment would have to be levied upon our members. The committee therefore urges the support and patronage of our advertisers. The committee calls attention to the excellent editorials that are given in each issue and comments upon the harmonious spirit existing between the Publication Committee, the Editor a ndthe Executive Committee of the Council, as well as the renewed interest that is being taken in The Journal by our members. The committee feels that with the support that was rendered to The Journal during the past year that it will be possible during the coming year to issue the type of Journal that will fully reveal the profession of ou rstate, while at the same time raise The Journal to a higher standard in the field of medical Journalism.

Signed by the committee,
R. C. STONE,
J. D. BRUCE,
A. J. MACKENZIE.

On motion of Councilor Randal, supported by Councilor Burke, the report of the publication committee was adopted.

ANNUAL MEETING

Chairman Randal, special committee to determine the time and place for the Annual Meeting advised that the meeting be held at

Lansing, September 15, 15 and 16. That in the event that the new hotel is not available, the Executive Committee is in power to secure a suitable place of meeting. On motion of Councilor Randal, supported by Councilor Green, the recommendation of the committee was adopted.

SCIENTIFIC EXHIBITS

On motion of Councilor Corbus, supported by Baird, it is moved that the Secretary be instructed to omit from our annual sessions commercial exhibits. After full discussioon, the motion unanimously carried.

ELECTIONS

On motion of Councilor Green, supported by Corbus, Dr. J. D. Bruce was elected for a term of five years as a member of the Medico-Legal Committee to succeed C. B. Stockwell, whose term has expired. Ballot was cast by the Secretary and Dr. Bruce was so elected.

Dr. F. C. Warnshuis was nominated for Secretary-Editor by Councilor Corbus and supported by several Councilors. On motion the Chairman was instructed to cast ballot for the Secretary. The Chairman did so cast and declared his election.

On motion of Dr. LeFevre, supported by Dr. Ricker, the secretary was instructed to cast the ballot for Dr. D. Emmett Welsh as Treasurer. The Secretary did so cast the ballot and determined Dr. Welsh elected.

The following resolution was presented by Councilor Baird and supported by Councilor Ricker and after full discussion the resolution was adopted.

Resolved that the Council of the Michigan State Medical Society through the proper channels, urge Commissioner Olin of the Board of Health to use his offices with the Governor and Legislature to secure a return of the fee of 50 cents for reporting obstetrical cases as required by law and of tuberculosis cases.

President Darling then addressed the Council and pointed out the avenues of Council activity for the Society. He commented upon the meeting that was held the previous evening and pointed out that the meeting was a meeting that would develop the most desired advantages of organized medicine in our state. He commended the Council for their zeal and activity in the discharge of the Councilor duties and commended the Society a hearty support void of individual quests for the better and greater developments of the opportunities that confront us.

On motion the Council adjourned at 2 p.m.

Signed,
J. B. Jackson, Chairman.
F. C. Warnshuis, Secretary.

Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

Dear Doctor Robertson:

I have read with much interest your article in the January issue of "The Journal" on "Medical Policies." I note that on page 28 of that article you credit me with the advocacy of a plan of development of health centers, as follows:

> "For instance, Doctor Cabot of the University of Michigan, proposes to develop health centers, governed by the University, manned by salaried professors, and supported, of course, by state funds."

Evidently there has been some mistake here since I have never believed in such a course and have never advocated it. I assume that inadvertently you have confused me with someone and I remember that former Dean Vaughan was at one time credited with having held such an opinion. I am not clear that he ever did hold this opinion though I have heard it attributed to him.

In any case, I have not, myself, believed in this method and fear that it would not work satisfactorily. Since I feel that you would not intentionally misrepresent the opinion of a colleague, I am writing to ask if you will not communicate with the editor of "The Journal" rectifying this error in such a way that it may be printed in the next issue? It appears to me important that the members of the society should not believe that the dean of the Medical School holds views which are entirely foreign to him.

With best regards, I am

Sincerely yours,
Hugh Cabot, Dean.

F. Dunbar Robertson, M. D.,
Ashton Building,
Grand Rapids, Michigan.

Dr. Robertson tenders his apologies to the statement made and is eager to correct the misrepresentation made of Dr. Cabot's position.

Editor of The Journal:

We are sending, for your attention, a copy of our new general catalog which, although it has only been recently issued, has been generously complimented by the doctors who have seen it. We should be glad to send a copy to any of your readers who are interested, and we hope that this one will find a very convenient place in your file for ready reference.

Very truly yours,
Swan-Myers Company,
R. M. Cain, Pres.-Gen. Mgr.

Editor of The Journal:

I am wondering if you knew of some good, young physician who would like to locate in a country town. Dr. Ingleright was here for about twenty-five years but moved to Niles a short time ago, which leaves us without a resident physician.

Dr. Ingleright had a practice here of from $8,000 to $12,000 a year, that is, he collected that amount. The nearest physician is at West Branch, which is fifteen miles south-west, none north for fifty miles, none east for fifty miles and none south nearer than thirty-five miles.

We have good gravel roads and a wonderful country to practice in. We would furnish a good office room with heat, light and telephone gratis.

I am enclosing you a picture of our building in which the office is located.

Kindly write me if you know of any doctor that would be interested.

Sincerely yours,
H.S. Karcher.

Editor of The Journal:

A Merry Christmas and a Happy and Prosperous New Year is my wish for You.

Enclosed with this is an article of this last summer's visit to Europe which I am sending to you for use in The Journal if you think it worth while. Probably you can use it as a "filler."

At this time I want to add a word of congratulation to you for the great work you are doing for medicine, not only in Michigan, but in the country as a whole. I wish there were more men with your spirit in the ranks.

Yours fraternally,
William J. Stapleton, Jr.

Editor of The Journal:

This Association is composed of about 65 eye, ear, nose and throat men, and it holds monthly meetings on first Wednesday of each month. We operate under a constitution and by-laws in conformity with the requirements of American Medical standards and allied associations of men doing special work.

Our membership committee (5) operate on a sliding scale of from one to five years service. Our membership is limited to men doing eye, ear, nose and throat work and oral surgery.

The association at the last meeting January 6, expressed a desire that this information be forwarded to you for record.

Our next meeting will take place February 3, 1926 at Post Tavern, Battle Creek. Program as follows.

Orthopedic Surgery—R. D. Sleight, Battle Creek.

Technique of Sub-Mucuous Operation—A. E. Owen, Lansing.

Case Report—A. P. Wilbur, Kalamazoo.

Oral Surgery—D. C. Lyons, Jackson.

Any additional information will be gladly supplied.

Very Truly Yours,
H. D. Obert, Secretary.

Editor of The Journal:

I think there should be one general session, each day, of not less than one hour's duration, taking up questions of general interest to the members of the profession.

In past years, the members of the society have been barred from taking any part in the proceedings that helped to formulate the policy of the society for the coming year.

The members must be made to feel that the society is theirs. That they have some part in its proceedings, or they lose interest. We can seek scientific instruction, at a time convenient to us, which will be of more value to us, in our professional work, than anything offered at the annual meeting of the society. The inducement, to join the society for scientific purposes, is not great.

The members of the society must be made to feel they have, or can have, some part in shaping the policies of the profession for they lose interest in the societies activities.

A few years ago the organized M. D.'s of Michigan had a law passed banning advertising without consulting but a small minority of the medical profession.

What has been the result of this action?

Loss of respect and prestige in the estimation of the public. Why? The law, banning advertising of our work and now what do we find? Organized medicine trying to get the doctor's name before the public by the newspaper route.

I do not believe the method chosen to obtain newspaper publicity for the doctor will be successful. The number of doctors to which this scheme will apply is too small to make it of value to the profession at large.

I ask you this question: When my patient, Mrs. Doe, moves to Grand Rapids, what authentic source of information is available to guide her in the selection of a physician to care for her family? I know of nothing but public gossip, never any reliable. What the doctor needs is some lawful method to keep him in touch with the public, some method by which he can tell the public what he is doing and is fitted to do.

I think the public look upon us as a joke because of our failure to use the newspaper to educate the people.

Fraternally,
Charles D. Cullen.

Editor of The Journal:

More than $200,000,000 have been invested in tuberculosis sanatoria and hospitals in the United States. There are nearly seven hundred institutions of this type and they make available sixty-six thousand beds for the sick from tuberculosis. Their annual maintenance alone amounts to almost $75,000,000.

Tuberculosis sanatoria are the original cornerstones upon which was built the now highly successful and life saving movement represented by the organized anti-tuberculosis campaign in America. To what extent are these institutions now utilized, and are more needed or not? This is the definite practical subject to which Mr. Drolet, statistician of the New York Tuberculosis and Health Association, has applied himself, and in his study of the "Recent Changes in Leading Causes of Death and Their Bearing on Tuberculosis Hospitalization" he gives us the broad facts underlying the present tuberculosis and general health situation in this country.

From 1900 down to 1918 in the United States the tuberculosis mortality remained steadily around 150,000 deaths a year; thereafter this great loss was reduced and the deaths now number 100,000 annually. Since 1920 there has been an increase, especially due to after-war building of 30 per cent in the number of tuberculosis beds in sanatoria, while the mortality was actually decreasing.

Between 1910 and 1922 tuberculosis in the United States passed from being the leading cause of death to fourth rank, being replaced by diseases of the heart. The general tuberculosis situation has been basically altered and, in the communities where there is already available a tuberculosis bed for each tuberculosis death, further enlargement of institutions, or building of new ones, instead of utilizing to fullest capacity existing facilities, is perhaps open to question. On the other hand, Mr.

Drolet's survey indicates that in only twelve states has this situation been reached, and there is still a deficiency of 39,000 tuberculosis beds in the remainder of the country.

After securing the establishment of tuberculosis institutions, and getting patients to utilize them, the greatest problem has been to retain the sick sufficienly long to achieve a cure or arrest of the disease. Mr. Bell and Mrs. Ilsen of the Hospital Service, New York Tuberculosis and Health Association, describe in the paper enclosed the "Psycho-physiological Effect of Music on Tuberculosis Patients" from their practical knowledge of the value of music as an agency among tuberculosis patients to "dispel morbid thoughts, depressing mental condition, and * * * to bring contentment, renewed interest in life and a willingness to exert the will * * * to fight the battle."

The Hospital Service of the New York Tuberculosis and Health Association, under their direction, has been responsible for the arranging during the past year of more than fifteen hundred musical performances, both in auditoriums, and in wards at the bedside of the sick in New York City's tuberculosis institutions, where close to 10,000 patients are reached annually. Mr. Bell and Mrs. Ilsen conclude that appropriate music is "a vital and enduring element in tuberculosis treatment."

The practical experience of the authors of these studies of tuberculosis hospital work may be better appreciated if we recall that Mrs. Ilsen was Director of Music in the Military Hospitals of the United States during the war period. Mr. Bell has been previously associated with the New York City Department of Health and was also President of the Board of Health of Glenridge, N. J., and that Mr. Drolet has been successively Statistician of Trudeau Sanatorium, the Tuberculosis Division of Bellevue Hospital, New York City, and of the Commission for the Prevention of Tuberculosis in France.

Comment and observations on these studies will be appreciated.

Sincerely yours,

Harry L. Hopkins.

New York Tuberculosis and Health Association.

Editor of The Journal:

You are probably aware of the fact that Bernarr Macfadden is sending "lectures" and exhibitors over the country giving a series of lectures on physical culture before local civic clubs. In some cases they have even persuaded the school authorities to permit the use of the public schools for this purpose.

When they attempted to do this in Richmond, Virginia, the State Health Commissioner, Dr. Ennion G. Williams, immediately got in touch with the American Medical Association and asked for such material as we had published on Macfadden so that he might put it in the hands of the officers of the civic organizations who had been approached by the Macfadden advance agents. He was sent pages from those issues of Hygeia that carried articles on this subject and was able with these to head off the Macfadden scheme as the Rotary, Kiwanis, Lions and other civic clubs canceled the "lectures."

We now have the Macfadden material in reprint form, and we are enclosing one of the reprints. May we suggest that when the Physical Culture concern attempts to impose upon people of your state in this way that the local health officer be urged to get our reprints to put in the hands of the officials of the various clubs and other organizations through which Macfadden tries to work.

Very sincerely yours,

Arthur J. Cramp.

The Journal A. M. A.
Bureau of Investigation.

State News Notes

Despite the general tendency towards relaxation of effort during the holiday season, the Wayne County Medical Society has continued to put on its usual high grade program with an ever growing attendance at meetings—a definite indication that the County Society depends in large measure on its program committee for its success.

On December 14, Dr. Jacques Forestier of Aix-les-Bains, France, gave a most interesting talk summarizing his work of the past four years on the use of Lipiodol in X-ray diagnosis. His series of lantern slides showing the various uses to which this non-toxic oil can be put was very impressive and served to make the evening one that will long be remembered by those who attended.

On December 21, Dr. J. Shelton Horsely of Richmond, Va., delivered a very instructive discourse on "Biologic Principles Underlying Gastric Surgery." Dr. Horsely certainly lived up to all the advance reports of his ability as a surgeon and he succeeded in acquiring a host of new admirers by the thoroughness with which he went into his subject.

No meeting was held on December 28th. The first meeting of the new year was held under the auspices of the Library Committee on January 4th, 1926. Dr. Jos. W. Courtney, President of the Boston Society for the Study of Medical History, was to have read a paper entitled "Benjamin Waterhouse, M. D., American Pioneer," but owing to sudden illness in the doctor's family, he was unable to appear and his paper was read by Dr. H. M. Rich, Chairman of the Library Committee. Incidentally, it might be noted here that there is real stimulus as well as the finest kind of entertainment offered by this type of program and the encouragement of the reading of papers before County Societies, dealing with the various phases and characters of Medical history cannot help but build up the attendance at the meetings.

On January 11th, Dr. W. McKim Marriott of the Washington University Medical School, delivered a most interesting essay on "Observations Concerning the Nature and Treatment of Certain Forms of Nephritis"—a talk which was enjoyed by a large number of the members of the Society.

On the night of December 24th, an explosion occurred in the Wayne County Medical Society clubhouse which blew out a large number of windows in the Society building and caused damages estimated at $6,000.

AMERICAN BOARD OF OTOLARYNGOLOGY

An examination will be held by the American Board of Otolaryngology in Dallas, Texas on Monday, April 19, 1926, and in San Francisco, California on Tuesday, April 27, 1926.

Application should be made to the Secretary, Dr. H. W. Loeb, 1402 South Grand Boulevard, St. Louis, Missouri.

The Annual Cancer Education Campaign of the Wayne County Medical Society was held in conjunction with the American Society for Control of Cancer during the latter part of January. Dr. Francis Carter Wood, head of the Crocker Research Institute, Columbia University, gave a demonstrative clinic at Harper Hospital in the morning of January 22, and addressed the Society in the evening. Free clinics for the Diagnosis of Cancer were held at all Detroit hospitals during the week of January 25th.

Dr. and Mrs. L. J. Hirschman, Detroit, sailed February 5 for a European trip and which will include the Orient.

Wayne County Medical Society meetings are now held on Tuesday evening. Members from the state who are in Detroit will always find profitable programs and are invited to attend.

Dr. and Mrs. E. O. Leahy, Jackson, announce the arrival of a baby girl, Donna, on Monday, December 14, 1925. Ed's smile is wider than when he double crosses his teriffic golf slice and lands straight ahead on the fairway.

There has been an epidemic of stolen medicine bags from cars in and about Jackson and when the bags have been recovered only the narcotics are missing. The substitution of a little apomorphine in morphine bottles might stop this for a while, at least till the boat got to land again.

Dr. G. Rex Bullen, Jackson school physician for a number of years, has resigned to go into general practice with offices in his home at the northwest corner of Franklin and Third Streets. He will have office hours two half days a week at Parma, about 12 miles west of here.

Dr. James H. Hudson, of Merrill, Michigan, was prosecuted for failure to report births under Act No. 343, P.A. 1925 and was fined $20 and costs amounting to $21.50.

Dr. Hudson pleaded guilty and the court allowed him until January 7th to complete filing all unreported births with the understanding that failure to do so would subject him to further prosecution and as prosecution under second or subsequent charges carries a fine of not less than $50 and not more than $200, it becomes quite a serious thing.

The State Department of Health is investigating all violations of this law which come to their notice and will actively prosecute violations of this kind.

The growing legal importance of birth records leaves no other course open. The Department is charged with protecting the rights of the citizens of this state in seeing that their citizenship is established by proper birth records and carelessness or negligence on the part of the birth attendants cannot be condoned.

Our Society Business and Activities

HARVEY GEORGE SMITH

EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

POST-GRADUATE CONFERENCE

The second post-graduate conference for the Tenth Councilor District was held at Bay City January 26. Physicians from Saginaw, Tuscola, Midland and Genesee counties were guests of the Bay County Medical Society at luncheon. The Bay County Medical society is one of the leaders in the state.

The attendance passed the one hundred mark which again is an indication that the post-graduate conferences are fulfilling the desires of the members in timely post-graduate instruction.

The following program was presented:

MICHIGAN STATE MEDICAL SOCIETY
POST-GRADUATE CONFERENCE
SHOPPENAGON GROTTO

BAY CITY—JANUAY 26, 1926

PROGRAM

10:20—10:30—Opening Statements—Fred J. Baird, M. D., Councilor, chairman.

10:30—11:00—Errors in Diagnosis—Fred Coller, M. D., Ann Arbor.

11:00—11:30—Arthritis, John B. Youmans, M. D., Ann Arbor.

11:30—12:00—Delayed and Mal-Union in Fractures, F. C. Kidner, M. D., Detroit.

12:15—2:00—Luncheon with Rotarians—Wenonah Hotel.

(Visiting Physicians Guests of Bay County Medical Society)

2:15—2:45—Goiter, Fred Coller, M. D., Ann Arbor.

2:45—3:15—Orthopedic Corrections, F. C. Kidner, M. D., Detroit.

3:15—3:45—Essentials and Methods of Laboratory Diagnosis, John B. Youmans, M. D., Ann Arbor.

3:45—4:00—Recess.

4:00—4:40—Differential Diagnosis of Pelvic Diseases in the Female, H. Hollister Judd, M. D., Detroit.

4:40—5:15—Common Involvements of the Rectum, Edward G. Martin, M. D., Detroit.

5:15—6:00—Appendicitis in Children, G. Van Amber Brown, M. D., Detroit.

DEBITS AND CREDITS FOR COMMITTEES

The committees of the County Medical Societies of Michigan by virtue of their position are directed to carry serious responsibilities. Whether or not they assume the obligations of their office is reflected in the records of the County Medical Societies at the end of each year. Active, energetic committees show credits which are directly proportional to the interest manifested. Lack of interest and of activity may close a society year with not only nothing done but with debits. Every committee exists for a definite purpose and that purpose should be attained in part or entirety.

Dr. Max Mason, president of the University of Chicago, speaking before the City Club of Chicago said, "We make progress or accomplish a purpose in a systematic way. First, we gather all the facts on the subject under consideration; second, we form a judgment and third, we proceed to act and carry out by a definite plan the judgment arrived at." If this is true with individuals, it is true with organizations and with committees of County Medical Societies.

If this plan is followed by all the committees of the County Societies of Michigan, no debits will be reported when this year concludes. In which column will your committee report at the end of your year of service to your society and profession in Michigan?

SCIENTIFIC TEAMS

Reports from County Medical Societies in all sections of the state of Michigan indicate that the minimum program has been or is to be adopted. One section of the program states definitely that scientific teams shall be organized by the societies for aid to adjoining societies in scientific programs.

Reports from many societies advise that teams are ready but they have no place to go. They have had no invitations and certainly they cannot flaunt their services upon their fellow practitioners. Large societies have a score of men ready to help their fellows.

Is this desire to serve to go unheard or fall by the wayside? It may be, too, that there are a number of societies who are not having programs, who are bemoaning their fate. "Ask and you shall receive." Secretaries or committees on the arrangement of programs need only write their fellow officers—the secretaries of neighboring societies, state their wishes in the type of program desired, the time and the place of meeting several weeks in advance and they are assured of scientic papers—that will make the members of the respective societies say, "Well done." Ask again but remember we're ready to help the other society, too.

Deaths

George T. Britton, M. D., died Dec. 30, 1925, of pneumonia following a four-day illness at Kalamazoo. He was a member of the Kalamazoo Academy and a graduate of the Detroit College of Medicine.

County Society News

JACKSON COUNTY

The last meeting of the year was held on Tuesday, December 15, with a business meeting at W. A. Foote Hospital for the election of officers and a banquet in the evening at the Otsego hotel. The election resulted as follows: Dr. Harold L. Hurley, president; Dr. Corwin S. Clarke, vice president; Dr. Don F. Kudner, secretary for the third successive year, and also the re-election of Dr. L. J. Harris as treasurer. It really should go on record as the re-election of Miss Marian Young, Dr. Harris' secretary, who has served faithfully and helped the incumbent hold his job ever since he has been in office.

The banquet was, truthfully for once in such a report, nothing to brag about, as the chef tried to camouflage some beef as chicken dark meat. Dr. G. C. Hicks presided as the retiring president and immediately after the meal which the doctors' wives attended as guests of the society, introduced our field secretary, Mr. H. G. Smith, who spoke briefly on the aims of the society for 1926. The meeting was then turned over to Dr. E. C. Taylor, chairman of the December meeting. Dr. Taylor introduced as the first speaker the president of the state society, Dr. C. G. Darling of Ann Arbor. It would be better to say he presented him to us as we needed no introduction, although matters concerning the president's ability as a huckleberry picker were introduced as news to all of us.

Dr. Darling gave a very clever and interesting resume of the progress of surgery at the medical school at Ann Arbor, interspersed with anecdotes on some of the chief characters in the advance of aseptic surgery. The subject was well chosen as one of interest to a mixed audience and was very well received.

Dr. H. N. Torrey, of Detroit, then gave us a description of his trip last year to the province of Kenya in Eastern Africa with a group of his Detroit friends and illustrated the talk with a number of reels of what he called "amateur movies" but which gave the audience a good idea of some of the hair-raising experiences he had while hunting wild animals. The humor of both speakers was very dry and the evening would have been well spent with either alone as the entertainer but the double bill was just that much more so.

Of local interest was a showing of a reel of movie film by Dr. W. L. Finton who "shot" some of our local talent disporting themselves on the picnic grounds this summer at the annual picnic.

Dancing concluded the program.

SHIAWASSEE COUNTY

The first meeting of the Shiawassee County Medical Society for the new year was held in the city hall auditorium Tuesday evening. Pursuant to a newly adopted policy of the State Medical Society the meeting was of an educational nature, the clergymen of the county being guests of the doctors. Owing to the inclement weather many who would otherwise have attended, were pre-

vented from coming, but those present were amply repaid for braving the elements.

The subject for the evening was "Narcotics," and Dr. McCormick presented an exceedingly well prepared paper, which was listened to with great interest. Reviewing the many kinds of narcotics, the doctor dwelt on the more common ones, such as cocaine, opium, and alcohol. The pernicious effects of the latter, were fully considered, but the enormity of the extent of other narcotics such as hashis and betul nut, was a surprise to many of his listeners. The fate of the present regime as to prohibition was said to be surely for the best and that the step having been taken, the nation would never recede from its present stand.

Many of the visiting clergymen availed themselves of the opportunity given them by Dr. J. O. Parker, chairman protem, appointed by Dr. McCormick during the reading of his paper, to congratulate the doctor on his excellent paper, and expressed themselves as having been greatly enlightened.

A resolution congratulating the state society president, Dr. C. G. Darling of Ann Arbor on his seventieth birthday today, was introduced by Dr. R. C. Mahaney and forwarded to Ann Arbor, by the local secretary, Dr. W. E. Ward.

At the opening of the meeting, the retiring president, Dr. J. J. Haviland, introduced the incoming one, Dr. C. McCormick very humorously, ending by reciting the poem "The Boys." The new president is the Nestor of the medical profession of the county.

The next meeting will be held February 9, in the city hall.

TRI-COUNTY

The meeting of January 6th demonstrates an increasing amount of interest, each meeting bringing out greater numbers, with live discussions.

The meeting was called to order by the president, Dr. R. D. Sleight, and the minutes of the last meeting read. The unfinished business which included the reading of the constitution, as amended, and its adoption and following this, nominations were in order for electing the "Membership Committee" of five. Final count resulted in the election of Dr. Bird, to serve five years, Dr. Wilbur, four years; Dr. Haughey, three years, Dr. Ellis, two years, and Dr. Colver, one year.

Dr. G. E. Winters presented a treatise on asthma which brought forth considerable discussion from all present.

The committee on Membership, through its chairman,Dr. Bird, instructed the secretary to notify the following of their election to membership: Drs. Weinburg, Behens and Kennedy of Lansing. Drs. Langford and Myers of Ann Arbor, and Dr. Don Lyons of Jackson.

At our next meeting to be held Wednesday, February 3, 1926, 6:30 p. m. at the Post Tavern, Battle Creek, we have reason to believe no one will want to miss this:. Ophthalmic Surgery, by Sleight; Technique of Sub-Mucous, by Owens; Case Report by Wilbur; Oral Surgery, by Lyons. You will find topics to interest you every minute, so sign the card, mark your appointment book for February 3, (S. M. T. A.) and plan to spend a few hours with specialists you ought to know.

We also wish to advice that the Graybar Electric Audiometer will be demonstrated at this meeting; Battle Creek men will kindly furnish three or four cases of obstructive deafness or nerve deficiency, loss of hearing, etc.

We want to give our "Committee on Membership," plenty of work so send or bring an application for a new member.

See you at the Post Tavern—February 3.

Yours very truly,

H. D. Obert.

P. S.—Several have neglected to pay 1925-26 dues. Kindly remit to secretary.

HOUGHTON COUNTY

The Houghton County Medical Society held its regular monthly meeting at the Scott hotel, Hancock, January 5, with 23 members present. After the reading of the minutes and allowing of bills the following members were received by transfer: Dr. Alec McNab, formerly of Lawrence, Mich., and Dr. Oler, Calumet. The application of Dr. F. E. Coster of the C. & H. Staff was received and referred to the board of censors. A motion was made by Dr. Harkness, seconded by Dr. Rupprecht, that the Society accept Dr. Henry Holm's transfer from the Marquette-Alger Medical Society.

The letter from the executive-secretary with regard to the minimum program was read and a motion was made to lay the matter on the table until the next meeting.

The Society then proceeded to elect the following officers for the year: President, Dr. A. C. Roche, Calumet; vice president, Dr. M. D. Roberts, Hancock; secretary-treasurer, Dr. G. C. Stewart, Hancock; censor for three years, Dr. W. T. S. Gregg, Calumet; delegate to the state convention, Dr. I. D. Stern, Houghton; alternate delegate, Dr. Simon Levine, Houghton.

A resume of the Houghton County Medical Society for the year 1925 was read by the secretary as follows: Total attendance 152; average attendance, 15; largest attendance, 27; total number of members, 40; total number of members removed by death, 6, namely Drs. Scallon, Lawbaugh, Reese, Simonson, Gallen and Rowe; total number of members by removal, 3, namely Drs. Wilkinson, Conrad and Bicknell; Post-Graduate conference held at Houghton in July; total attendance at conference, 55; motion picture films shown in May, loaned by the H. G. Fischer Co., of Chicago. Social activities: Dinner given by the staff of St. Joseph Hospital to members of the Houghton County Medical Society. The week of November 1 to 7 was designated as the week of physical examination for members and their families.

The secretary then read the financial report for the year 1925.

The Houghton County Medical Society was very fortunate in being able to have as its guest of honor Dr. R. L. Kahn of the Michigan State Board of Health who next gave a talk on "Serum Diagnosis of Syphilis." Dr. Kahn first took up the problem: "Why is the serum diagnosis of syphilis important?" Because syphilis is important. Syphilis is prevalent everywhere, in all climates, and is no respector of age. Syphilis is secretive; it often does not show obvious symptoms, and is a marked danger to the community.

Up to 1906 no blood test was available for syphilis. At this time Dr. Schaudinn announced the discovery of the Spirochaeta Pallida; Bordet and Genou discovered the phenomenon of complement

fixation and Wasserman, Neisser and Bruck in attempting to apply this phenomenon to syphilis, discovered the Wasserman test.

From the very beginning of the use of the Wasserman test, different workers became interested in developing a simpler test for syphilis. It was early recognized that the Wasserman test has numerous sources of error. First, the use of five different biological reagents: 1, complement; 2, amboceptor; 3, antigens; 4, blood and corpuscle suspension; 5, patients blood serum. These different reagents may vary. Second, the test has to be incubated; third, is the different technique used in different laboratories. All of which accounts for the different results in the hands of different workers.

Many attempts have been made to evolve a test for syphilis based on the phenomenon of precipitation. In 1921, Dr. Kahn began to work on this problem by studying the principles governing precipitation in syphilis. The test he evolved is now widely used throughout the world and in the Michigan State Laboratories alone there is a record close to 200,000 Kahn tests.

The test is performed by mixing the patients serum with three different amounts of standardized antigen. The things that recommend the test are simplicity and lesser sources of error thus assuring greater reliability of the end results.

Dr. Kahn stated that in many parts of the world no serum test for syphilis is available because of the complicated technique of the Wasserman test.

The performance of the test should be in the hands of one trained in laboratory work. Miss Mills is the laboratory technician at the Houghton State Board of Health Laboratory stated that she felt safer in giving out a positive result with the Kahn test than with the Wasserman.

This subject was very freely discussed by all members present and numerous questions were asked Dr. Kahn with regard to this work.

The Society then adjourned to lunch at which time further discussion of the subject was indulged in.

We take this opportunity to thank Dr. Kahn for his kindness in coming to us and giving us such an interesting and instructive talk.

A number of the members stated that this was one of the best medical meetings we have had in Houghton county.

The president urged that all members promptly remit their medical dues for the coming year at once.

Yours very truly,

G. C. Stuart, Secretary-Treasurer.

Whereas, Providence has removed from our midst our esteemed and beloved friend, Dr. Charles E. Rowe, an honored member of the Houghton County Medical Society, and memberof the Michigan State Medical Society and the American Medical Association, be it

Resolved, That we, the members of the Houghton County Medical Society, extend our deepest sympathy and sorrow to the bereaved family; and be it further

Resolved, That a copy of these resolutions be forwarded to the immediate family, and be it further

Resolved, That these resolutions be spread upon the minutes of the Society, and a copy forwarded to the Michigan State Medical Society for publication.

(Signed) A. D. Aldrich,
A. F. Fischer,
T. P. Wickliffe.

KALAMAZOO COUNTY

The annual meeting of the Kalamazoo Academy of Medicine was held Tuesday, December, 1925. The clinics held in the forenoon at Old Borgess Hospital were well attended. The regular business session, election of officers, presidents address and address by Dr. Phillip Hadley took place in the afternoon at the Academy rooms. In the evening members of the Society and friends were guests of the Upjohn Company for dinner, following which was an address of welcome by Mr. Harold Upjohn and addresses by Reverend J. W. Dunning and Dr Irving S. Cutter.

At the regular business session the Academy approved of the secretary's report as printed in the Bulletin and of the treasurer's report as printed in the Bulletin and amplified by the treasurer. Reports of other committees were approved as printed in the Bulletin.

Dr. Jackson, in behalf of the State Society, urged all members who possibly could to attend the district conference at Battle Creek. He also requested them to vote on the referendum stating their desires as to the future program for the State Society meetings. Drs. Crum, C. A. Youngs and Rogers were appointed by the chair as tellers for the election of officers. Two ballots were taken, Dr. Rush McNair leading on both ballots, others were scattered. Motion was made and carried that the three leading candidates be considered nominees. Motion was made by Dr. Rogers, one of the three leading candidates, that his name be withdrawn and that Dr. McNair be unanimously elected president of the Society. Carried.

A report of the nominating committee was then read. Followed by a motion which was carried that the secretary cast a ballot unanimously electing the members presented by the nominating committee to office. The following were elected to office for the ensuing year:

President, Rush McNair; first vice president, O. D. Hudnutt; second vice president, W. P. Bope; third vice president, C. A. Youngs; treasurer, Don C. Rockwell; librarian, R. J. Hubbell; censors, L. H. Stewart, W. G. Hoebeke; delegates to the State Society, L. J. Crum, W. E. Collins, C. E. Boys; alternates, A. E. West, W. R. Vaughn, H. F. Becker.

MINUTES OF SPECIAL MEETING

At a special meeting of the Kalamazoo Academy of Medicine, called by the president, December 30, 1925, Dr. Sage was called upon and gave as the object of the meeting the desire to take suitable action relative to the death of Dr. Thomas George Britton. He gave a brief review of Dr. Britton's illness and called attention to the loss of one of our prominent members.

Following Dr. Sage's statement of the object of the meeting, motion was made by Dr. Light that the president appoint a committee to draw up suitable resolutions to be presented at the next regular

meeting of the Society. Drs. Welsh, Sage and Jackson were appointed on the committee.

The president also appointed a floral committee consisting of Dr. Eaton and Dr. Shackleton. A motion was also made by Dr. Eaton that the members of the Academy meet in the Academy rooms at 10:15, January 2, to attend Dr. Britton's funeral in a body.

The secretary was instructed to notify members of the society of the action taken at this meeting.

Adjourned.

OCEANA COUNTY

At the regular meeting of the Oceana County Medical Society Dec. 3, the following officers were elected for the coming year:

President, L. P. Munger, Hart; vice president, J. D. Buskirk, Shelby; secretary-treasurer, Clinton Day, Hart; delegate to state convention, J. H. Nicholson, Hart, alternate, A. R. Hayton, Shelby.

After transacting other business the "Minimal Program" as outlined by the State Society for the County Medical Societies, was discussed, and motion made to carry out the program as far as in our province, to do so, was carried.

December 17, at the annual meeting of the Oceana County Medical Society held at the home of Dr. W. L. Griffin, the retiring president, a bountiful 7 o'clock dinner was served, to which the wives of the members were invited.

After a short business program the evening was spent in social and musical entertainment.

Clinton Day, Secretary.

BAY COUNTY

The Annual Meeting of the Bay County Medical Society was held at the Wenonah hotel, December 14. The meeting was a memorial to the late president of the society, Dr. C. A. Traphagen. The vacancy in the office of president, occasioned by the death of Dr. Traphagen, was never filled.

After the reading of the annual reports Dr. J. W. Hauxhurst gave a short talk on Dr. Traphagen as he had known him.

The annual banquet with 45 members present, was followed by the following election of officers for 1926:

President, Dr. V. H. Dumond, Bay City; vice president, Dr. David Smith, Omer; secretary-treasurer, Dr. L. Fernald Foster, Bay City; Medico-Legal Committee, Dr. A. W. Herrick; delegates to Annual Meeting, Dr. Mary Williams, Dr. C. A. Stewart; alternates to Annual Meeting, Dr. L. F. Foster, Dr. G. M. Brown.

MUSKEGON COUNTY

The regular meeting of the Muskegon County Medical Society was held the evening of Jan. 15, at the home of Dr. E. S. Thornton at Interlaken, with 29 members, and four visiting physicians present. The president, Dr. Thornton, dispensed with the regular order of business and gave the evening to Dr. Richard Smith of Grand Rapids. Dr. Smith spoke on goiter, giving his classification and covering symptoms, and treatment of each type, illustrating his talk with lantern slides. The subject was discussed by Drs. Wilson, Garber, Marshall, Busard, Closz, and Mandeville. Dr. Smith closed the discussion.

The meeting was followed by a very tasty luncheon and smoker. Dr. Smith promised to come again.

P. S. Wilson, Secretary.

SANILAC COUNTY

The twenty-fourth Annual Meeting of the Sanilac County Medical Society was held in the court house at Sandusky December 18, 1925 at 2 p. m.

The following officers were elected for the following year:

D. D. McNaughton, president; N. J. McCall, vice president; S. M. Tweedie, secretary-treasurer; John Campbell, delegate to state convention; G. S. Tweedie, alternate to state convention; C. G. Robertson, Medical-Legal.

There being no further business the meeting was adjourned.

S. M. Tweedie, Secretary-treasurer.

CHIPPEWA-LUCE-MACKINAW CO.

At the annual meeting of the Chippewa-Luce-Mackinaw County Medical Society held in Sault Ste. Marie, Dec. 4, 1925, the following officers were elected for 1926:

President, Dr. Geo. A. Conrad; vice president, Dr. F. H. Husband; secretary-treasurer, Dr. F. C. Bandy; delegate to state meeting, Dr. E. H. Webster; alternate, Dr. R. Bennett.

The members all indorse the minimum program, and all pledged their support in carrying out the program.

F. C. Bandy, Secretary.

GRATIOT-ISABELLA-CLARE CO.

The Gratiot-Isabella-Clare County Medical Society met in the Alma city hall Thursday, Dec. 30, and elected the following officers for 1926: President, F. J. Graham, Alma; vice president, H. F. Kilborn, Ithaca; secretary-treasurer, E. M. Highfield, Alma.

There was considerable discussion of the minimum program, but no action was taken. The general feeling being that we were spread out too far to carry out such a program.

E. M. Highfield, Secretary.

LENAWEE COUNTY

The annual Election of officers for Lenawee county was held in Adrian January 15, 1926.

The following officers were elected, President: H. H. Hammel, M. D., Tecumseh; vice president, S. J. Rubley, M. D., Britton; secretary-treasurer, R. T. B. Marsh, M. D., Tecumseh; delegate to state society, A. B. Hewes, M. D., Adrian; alternate delegate, A W. Chase, M. D., Adrian.

R. T B Marsh, Secretary

MIDLAND COUNTY

Dear Doctor:

The Midland County Medical Society held a meeting on January 18, 1926. Officers for year 1926 are for president: Gus Sjolander, Midland, Mich; secretary, E. J. Dougher, Midland, Mich.

Fraternally,
E. J. DOUGHER.

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

THE SURGERY OF PULMONARY TUBERCULOSIS: John Alexander, B. S., M. D.—Assistant Professor of surgery U. of M. Introduction by Hugh Cabot, M.D. Lea and Febiger Company.

Our best review is Dr. Cabot's introduction:

No country in the world has attacked the general problem of tuberculosis of the lung more vigorously and I believe more intelligently than America. The attack has been made both through professional endeavor and popular education and very important improvement has been obtained.

The surgery of tuberculosis in fields other than that of the lung has been extensively developed and is, I believe, at least abreast of the results obtained anywhere. Under these conditions it is rather extraordinary that we should have been so notoriously backward in doing pioneer work in the surgery of pulmonary tuberculosis. In fact, however, the surgical measures which have been put forward as of value have almost without exception come from abroad. For more than a generation operative surgery in this field has been developing chiefly on the Continent, yet very little attention has been paid to it in this country. The evidence collected by Dr. Alexander of the number of surgeons working in this field and their reported cases shows a very respectable total for Continental surgeons, but a very meager total for American surgeons.

In general, we rather fancy ourselves as operating surgeons. We have extended and diversified our knowledge in the field of anesthesia which is one of the important problems in connection with the surgery of the chest. We have the technical facilities to deal with the questions here raised. But in spite of these advantages, our attack upon the problem has lacked force. With outstanding exceptions, the American surgeon has turned a deaf ear to the appeals of this problem an dour extraordinarily small contribution is, to put it mildly, not flattering. Whatever may be the cause, there is little remaining excuse.

In this volume has been put in available form nearly the whole knowledge of the subject. No longer can we dodge the issue. The data sufficient to the forming of sound preliminary judgements are here spread before us. Dr. Alexander has not entered the field as an advocate of some pet method of his own but has quite dispassionately set forth the facts. He has given us ample detail in technical matters so that we need not fall into the pitfalls of the past. It appears that even at this stage of its development over sixty per cent of the patients upon whom radical surgery has been attempted for the amelioration of pulmonary tuberculosis are importantly better off. Unless this field is very different from other fields of surgical endeavor, we may expect still better results to follow.

After carefululy reading his manuscript I cannot avoid the conclusion that we in America have neglected a great field in which surgery may alleviate suffering and bring hope. It behooves us to take this contribution of Dr. Alexander's seriously; to make use of the labors of our Continental colleagues and to bring to this problem all that we have to offer of skill and dexterity. We shall not lack in co-operation from our brethren in the field of physio-therapy but we must be willing to share with them the risks and disappointments.

I believe this book will give great impetus to the surgery of the tuberculous lung.

Hugh Cabot.

LECTURES ON HEREDITY: A series of lectures given at the Mayo Foundation and the Universities of Wisconsin, Minnesota, Nebraska, Iowa, and Washington (St. Louis), 1923-24. 12 mo., 250 pages, illustrated. Cloth, $2.50 net. W. B. Saunders Company, Philadelphia and London.

LECTURES ON NUTRITION: A series of lectures given at the Mayo Foundation and the Universities of Wisconsin, Minnesota, Nebraska, Iowa, and Washington (St. Louis), 1924-25. 12 mo., 243 pages, illustrated. Cloth, $2.50 net. W. B. Saunders Company, Philadelphia and London.

MEDICAL CLINICS OF NORTH AMERICA, (Issued serially, one number every other month). Volume IX, Number IV, Tulane University Number. January, 1926. $16 net. W. B. Saunders Company, Philadelphia and year, (July, 1925 to May, 1926), Paper, $12; Cloth Octavo of 381 pages, with 49 illustrations. Per clinic London.

Received.

ABDOMINAL OPERATIONS: Sir Berkeley Moynihan, K.C.M.G., C. B., Leeds, London, England. Fourth edition, entirely reset and enlarged. Two octavo volumes totaling 1,217 pages, with 470 illustrations, 10 in colors. Cloth, $20 net. W. B. Saunders Company, Philadelphia and London.

It is exactly twenty years since the first edition of this text was published. During these years surgeons have turned to it for guidance that was ever helpful. The text is presented in this fourth edition in a manner that imparts the ripened experience of the author, hence greater value attaches. No surgeon can afford to continue his surgery until he freely consults this text written by a world's master surgeon.

It has been ten years since the appearance of the last edition of this work. During this time many advances have been made in abdominal surgery. Sir Berkeley, active in the war service, and observing the great changes taking place in technic, in the refinements of standard operations, in sterilization and in after-care, decided to give his work a drastic revision. He did—virtually rewriting the work, necessitating its resetting from cover to cover. Obsolete methods were eliminated, a great deal of new material was added, many new illustrations were included. It is truly a brand new work and a magnificent summary of present-day surgical methods.

Several new chapters have been added, among them being those on Hypertrophic Stenosis of the Pylorus, Disappointments After Gastro-enterostomy, Dilatation of the Duodenum, Carcinoma of the Rectum, Preliminary Observations upon Cholelithiasis, Secondary Operations on the Biliary System,, and a very important one on Surgical Technic. Sir Berkeley is particularly thorough and scrupulously careful in describing technic, believing to operative skill more than to any other factor is due the success of an operation. Throughout the book, therefore, he teaches great respect for the principles of technic and their application.

Sir Berkeley's wide experience with a great wealth of material, both in a large private practice and during his active service in the war, combined with his international reputation as a surgeon of unusual skill, make this edition of Abdominal Surgery a most desirable addition to the library of every surgeon in active practice.

ULTRA-VIOLET RAYS IN THE TREATMENT AND CURE OF DISEASE: Percy Hall—London. Price $3.75. C. V. Mosley Company, St. Louis, Mo.

An aceptable guiding manual.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

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Original Articles

INTRAVENOUS THERAPY IN ACUTE INFECTIONS AND INFECTIOUS DISEASES

HUGH H. YOUNG, M. D.
BALTIMORE, MD.

Perhaps I should apologize for again talking to any audience about the use of dyestuffs in therapy, but I think there is still a great deal to be said and many people to be persuaded, so I don't have to apologize.

Septicemia is certainly one of the greatest problems that the medical man and the surgeon have to deal with, and all of us can look back in the past and see friends and relatives who have passed away within two or three days after the beginning of an infection, and realize how helpless we have always been.

In 1913, at the great Congress of Medicine in London, Ehrlich presented his great paper on "The Therapia Sterilisans Magna."

There he presented his 606 and other combinations with which he showed that in certain instances he could immediately sterilize a syphilitic patient and in certain other infections with spirochaeta and spirilla get immediate sterilization. In that great address he predicted that in a few years we would see that form of therapy applicable to a great many infectious diseases.

A few years after that, at the Brady Institute at Baltimore, we began a systematic study of the question of germicides. During the war, my experience had shown so conclusively the very great value of prophylactic treatment in gonorrhea, for instance, and after seeing the magnificent results of the Carrel-Daken treatment of wounds, I felt positive that the future had in store for us great things if we could only find antiseptics and germicides that would not be greatly injurious.

Believing, from what we had seen, and especially from the results of the work of Browning in England, that the dyestuffs held a great secret for us in the discovery of proper germicides, we secured a chemist from the Department of Chemistry of the United States Government, a great expert in dye chemistry, and started him to work to see what he could make in the way of combinations of dyestuffs that would be antiseptic or germicidal in character.

Dr. E. J. White, working in our laboratories, has produced some 265 different combinations, and those combinations have been studied in the bacteriological and animal laboratories, and, when found to be promising on specially selected patients. From these studies we have gotten three dye germicides that we think are of very great value.

One of them, which was No. 220 of the list, I wish to talk to you about this afternoon. Our desideratum in this study of dye germicides was, in the first place, something that had high germicidal potency, secondly, low toxicity; thirdly, slight irritating qualities; fourthly, great penetration, and fifthly, that it would not be brought down by serum or urine or other body fluids, so that it could be used in the living organism in combating infections.

Of these 265 drugs, No. 220 answers the purpose best for the line of diseases that I am going to talk about this afternoon.

Our experiments showed that this drug could be introduced, one time, into rabbits in doses of twenty milligrams per kilogram, several times in doses of ten milligrams per kilogram, and very frequently in doses of five milligrams per kilogram. The dosage that we have selected for the human being is five milligrams per kilogram, which we feel is perfectly safe. We admit that in animals large doses do produce a transient albuminuria, sometimes a few casts, and symptoms of renal irritability, but in the large number of cases that we have followed, many of whom we have given bigger doses than five milligrams per kilogram, (which is 23 c.c. of a one per cent solution per hundred pounds of body weight), I have never seen one who

*Stenographic notes of a lantern-slide demonstration.

had more than a transient albuminuria. The longest was one week. We feel from animal experiments and from the great series of human experiments that we are on perfectly safe ground.

This mercurochrome about which I wish to talk is not only valuable in the presence of serum but also in the presence of urine and other body fluids. In a strength of 1 to 1,000 it will kill the gonococcus, the colon bacillus or the staphylococcus albus or aureus, in one minute; so that we have a very potent drug as well as a non-toxic drug.

In a clinical paper which we presented in 1919, we pointed out the value of this drug in local treatment. We wish, now, to bring before you the result of two years' experience with the drug as an intravenous therapeutic agent.

The first case in which we used it and the first demonstration of the fact that by means of this drug we could get a complete sterilization of an acute infection of the blood was that of a man who had had double pyelonephritis due to the colon bacillus[1]. Following instrumentation, he developed a septicemia, was sent into the Johns Hopkins Hospital, was extremely sick, was seen by the medical department, cultures were taken, and 140 colonies of the bacillus coli communis were found in his blood. Within two days he became unconscious, and the mediral men gave him about four or five hours to live.

We gave him 34 c.c. of a 1 per cent solution of mercurochrome. He had a chill, a high temperature, with a drop in three or four hours to normal. Within twelve hours he awoke from his lethargy and asked for something to drink. He ate his breakfast the next morning. A blood culture showed that the blood had become sterile. He left the hospital a few days later, well.

That case, which was our very first, was one of the most startling that we have had. It started us on a hunt for cases in which intravenous therapy could be used.

This is a slide (Fig. 1) showing the first case that I have mentioned. You see the temperature was ranging between 104 and 105. He was gifen mercurohhrome, and there was a slight rise, then a drop of about 6° to normal and within three or four days the temperature was practically normal. Remember, he had an extensive pyelonephritis. We not only succeeded in twelve hours in sterilizing his blood, but the urine was sterile when he left the hospital about a week later.

The next case, which was a very startling one, is that of a child four years of age who was admitted to the hospital with scarlet fever. Here he was given Dochez' serum, 40 c.c. in total, without any result. The temperature ran from 104 to 105; and as you see here was over 106. He had 57,000 leukocytes in his count. The throat had become so swollen that he could not swallow. The glands of the neck were out to his chin. An erysipelas had crept up from his mouth and covered the right ear and closed the right eye. His urine contained pus, albumin, streptocci in large amounts, and he was desperately sick, unable to swallow, and practically unconscious.

He was given a large dose, 7½ milligrams per kilogram. Within twelve hours his blood was sterile and cultures taken every day thereafter showed it to be sterile. Within four or five days the erysipelas, the glands of the neck, the swollen tonsils, had completely disappeared, and the boy was practically well[2]. The urine was normal.

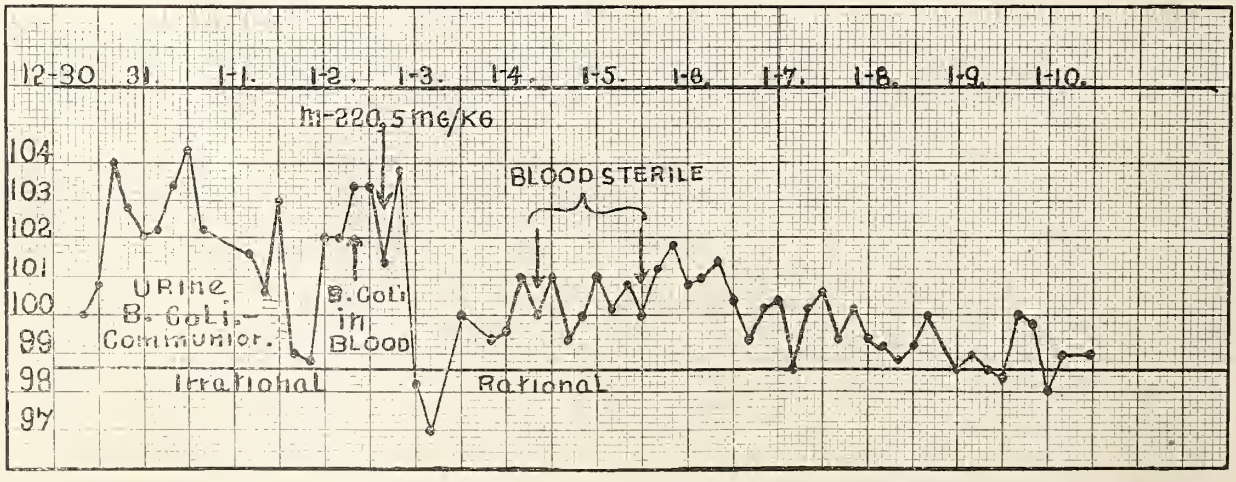


Fig. 1. Double pyelonephritis due to the colon bacilus: septicemia following instrumentation. One injection of mercurochrome, 34 c.c. of a 1 per cent solution, followed by recovery.

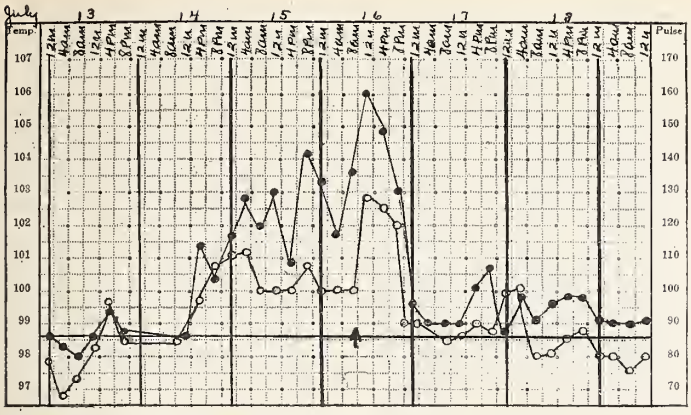


Fig. 2. Retroperitoneal abscess following bladder instrumentation. Colon bacillus infection. One injection of mercurochrome, 5.4 mg. per kilogram, followed by marked improvement and recovery without operation.

The next case was (Fig. 2) a very interesting case of a young man who, following instrumentation of the bladder, developed a retrovesical infection which traveled upward, with an increasing temperature, until it reached 104. An examination of the abdomen showed a mass which was diagnosed a retroperitoneal infiltration of an inflammatory character. It was the kind of a case that we surgeons ordinarily would send immediately to the operating room and open up with a wide incision. Instead of that, at this point we gave him 5.4 milligrams per kilogram, which is about 38 c.c. of a 1 per cent solution mercurochrome. The temperature rose to 106°. Within twelve hours it dropped to 99, a drop of seven degrees, with a slight rise the next day, but after that it practically was normal. To a surgeon the most startling thing was the very rapid disappearance of this mass, which was bigger than a hand, and a complete cure of what was evidently an extraperitoneal infection.

This is a chart showing a study of the stools, of the urine, and of the vomitus in that case. Within one hour the concentration of the drug in the urine was 1:50,000, but by that time the urine was negative for organisms. Within two hours it was 1:25,000, and within three hours it was 1:10,000 and remained that for four hours. In the fourth hour the stools contained the drug in the strength of 1:10,000, and the vomitus contained the drug in the strength of 1:100,000.

This is the chart of another case, showing a study of the renal and intestinal elimination of mercurochrome in which it was administered by mouth. The drug can be given by mouth, preferably in capsules. We give 100 milligrams at a dose, starting with 3 capsules daily and increasing gradually up to 9 daily.

When the amount of drug given three times a day was 100 milligrams, a mere trace showed in the urine in the tenth hour. On the third day of treatment it was in a strength of 1:15,000. We have been able to sterilize several cases of urinary infections by simply treating them by mouth[3].

An interesting thing is that when mercurochrome is given intravenously it appears in the bile in stronger concentration than through the kidneys. Within tihrty minutes it was present in the strength of 1:5,000, which is a very strong antiseptic solution. It remained in this strength for an hour. It begins to weaken after that hour slightly, but until the eighth hour it is there in a strength of 1:7,000. When given by mouth it appears more slowly in the bile, but it does come out in the strength of 1:50,000 an dit can be kept up for a number of days at that strength, so that it has definite germicidal value in the biliary tract when given by mouth.

This is some experimental work done to see at what strength it was necesary to have the concentration in order to kill the bacillus typhosus, the paratyphoid, or the dysentery organism involved. We found that in the strength of 1:5,000 the bacillus typhosus could be killed in bile in one hour. As it is possible to produce the strength of almost 1:5,000 for four or five hours by intravenous injection, we were quite prepared to believe that the drug injected intravenously would be of great value in typhoid carriers of the biliary type and possibly also in typhoid fever[4].

Look at this typhoid chart, (Fig. 3). Here you see the reaction, a drop of from 105½ to 98, about a seven degree drop. Here it is repeated in the same way, a crisis that is practically unknown in typhoid fever and which ended the fever in the case after the second injection.

Our number of cases collected so far is entirely inadequate to show its value in typhoid fever. There have been only about twenty cases reported. The mortality, according to the reporters, is distinctly lowered, but it is entirely too early to talk. We know that it can be used with impunity, and we know from experimental evidences that the drug comes through the biliary tract in large quantity, so we are prepared to believe something more will be accomplished. We have also three cases of multiple liver abscesses, which have responded very remarkably to the intravenous treatment with mercurochrome, and if Dr. Davis, of Detroit, who is here, could tell us of two extraordlnary cases he has had in which he

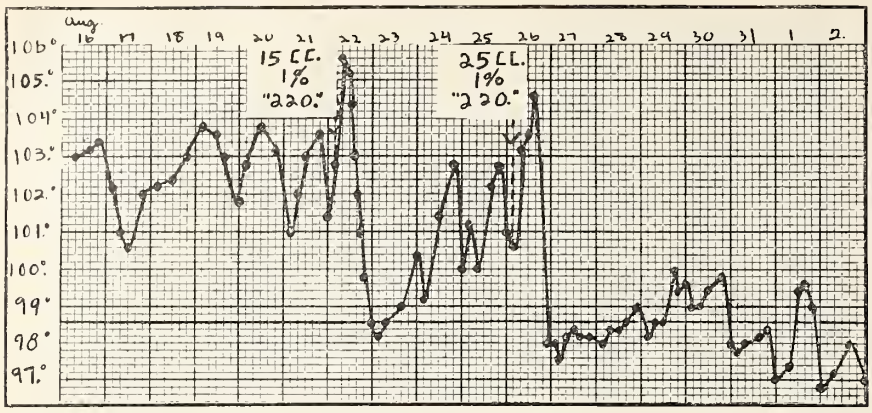


Fig. 3. Typhoid fever. Two intravvenous injections of mercurochrome, 1 of 26 milligrams per kilogram and 1 of 4.4 milligrams per kilogram, both followed by marked improvement in condition. Rapid recovery followed. Case of Dr. H. P. Linn.

saw these abscesses at operation, closed the abdomen, then treated the cases with mercurochrome intravenously he could explain to you how rapidly they got well under intravenous treatment.

I can report also a case of Dr. W. M. Dabney where incision was made, multiple abscesses discovered, the abdomen closed after taking a culture by means of a hypodermic, and where followed intravenous therapy apparently they all disappeared, because the patient got entirely well. The culture showed staphylococci.

I am prepared, therefore, to feel quite confident that intravenous therapy with mercurochrome will have a very distinct value in biliary surgery.

Following our demonstration that a retroperitoneal localized mass would disappear after localized treatment, we gave it to certain patients who had erysipelas and furunculosis.

Here is a chart of a man who had six large furuncles on one leg and one carbuncle on the other leg. He was not running any temperature, but this is the reaction obtained by four millograms per kilogram, which was followed by disappearance of all of the boils except the largest one. He was given a second dose here about ten days later, with the usual reaction and with a complete disappearance of the last boil.

We have collected now some twelve cases which show very conclusively that you can by intravenous therapy get a disappearance of localized purulent infections such as boils, carbuncles, erysipelas and cellulitis.

This chart is of an interesting case of fulminating ulcer of the pens in which we obtained the staphylococcus. We first gave Gentian violet, which, as you see, gave us no febrile reaction, then mercurochrome with this rise of 104½° and an immediate drop. The second dose caused practically the same thing to a lesser degree, with a complete disappearance of the ulcer of the penis. This case was one of the most striking demonstrations I have ever seen of the effect of the drug. This individual had an ulcer on the dorsum of the penis which had been present six months. It was an extensive fulminating phagedenic ulcer that was accompanied by severe pain, so much so that the patient had become a morphin habitue and required a large amount of morphin every day to keep him comfortable. We tried cauterization and local treatment without effect. Finally we gave him two doses of mercurochrome. Within four hours after the first injection of mercurochrome, the pain disappeared for the first time in six months. Within a few days it began to granulate, and after the second injection the lesion promptly healed. Here was an individual in such terrible misery that he really contemplated suicide at the time that he received this injection. This case and others are collected in an extensive compilation of clinical reports in the Archives of Surgery[5].

This chart (Fig. 4), is one that was furnished me by Dr. Freeman. It is a very remarkable case of pneumococcus infection, following abortion. The blood culture showed the pneumococcus Type 4. The

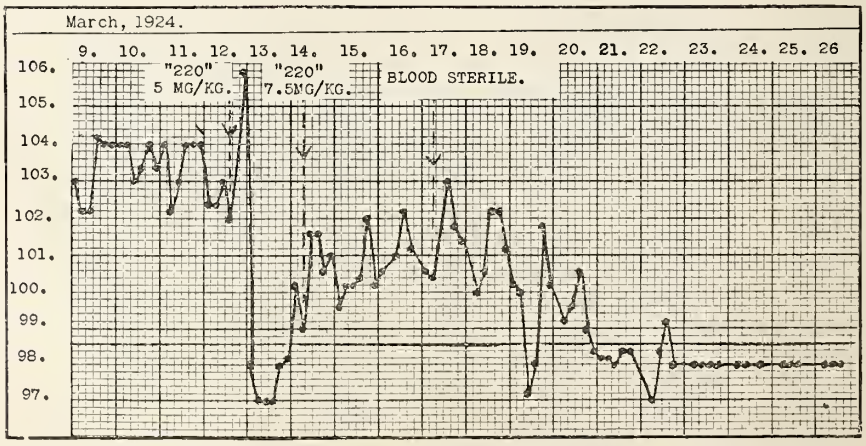


Fig. 4. Septicemia, due to pneumococcus Type 4, following abortion. Recovery after two intravenous injections of mercurochrome. Case of Dr. E. B. Freeman.

patient was having a temperature of 103° to 104° every day. Here she received five milligrams per kilogram, with a chill and rise to 106°, and a drop of almost nine degrees. The blood was sterile the next day although the patient ran a little temperature and was given a second dose of 7½ milligrams per kilogram, which is a very large dose. The blood remained sterile, and within a week the temperature was normal, the pneumonia and the general infection of the blood with the pneumococcus was gone, and the patient was well. The next is of a case of puerperal septicemia following an abortion. The patient was said by Dr. Malone to be so desperately ill that he felt sure she would not live. Two injections of mercurochrome were made close together; they were rather small injections. There followed a drop practically to normal. Two more injections were given, (which were probably unnecessary), and the patient went on to a rapid recovery.

This is a case of Dr. Davis', which he kindly sent me, of a very serious puerperal sepsis with a pelvic abscess in which it was necessary for him to give three injections of mercurochrome. After this the patient was practically all right, except that the abscess persisted. A vaginal puncture was done, draining away the pus, and the patient promptly got well.

This is another one of Dr. Davis' cases, a very serious case of puerperal sepsis, in which he gave three injections of mercurochrome, 20 c.c. of a 1 per cent solution, and opened secondary abscess. In this case Dr. Davis pointed out that the abscess that he opened was about the size of an orange and would ordinarily have required a large incision, but he only had to puncture it in order to get away the pus, and the mass disappeared without further surgery.

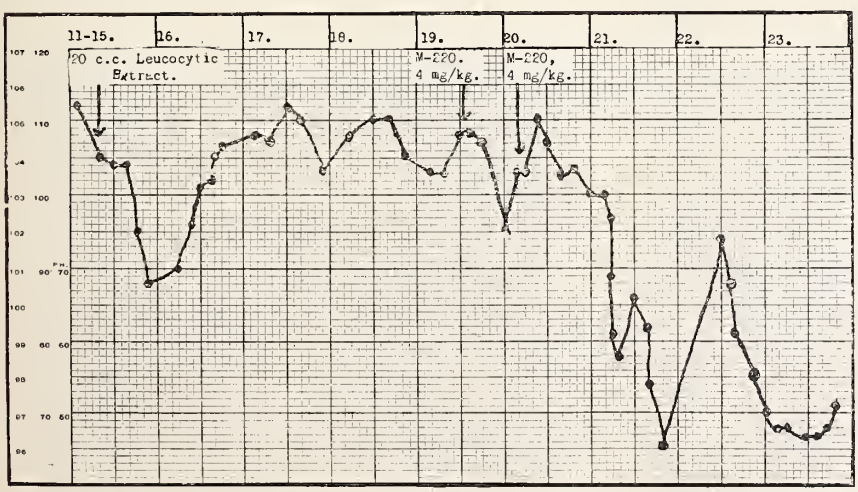


Fig. 5. Septicemia endocarditis; laryngitis; strepttococcus infection. Two intravenous injections of mercurochrome 4 mg/kg. followed by recovery. Case of Dr. G. D. Mervivne.

This is another case of Dr. Davis' of puerperal sepsis, in which one injection was sufficient to stop the temperature and lead to cure of the patient.

This case (Fig. 5) is one of general septicemia with endocarditis following laryngitis due to the streptococcus. At this point the physician telephoned me one night about 10 o'clock and said that his patient was practically moribund and that he would not live until morning. I suggested a big dose of mercurochrome. He only gave him four milligrams per kilogram, with a slight drop. The next day he repeated it, with a drop practically to normal. According to Dr. Mervine, the intravenous therapy unquestionably saved the patient's life.

This is a case that shows how it is often necessary to give multiple injections to get final results. This is a case of septicemia

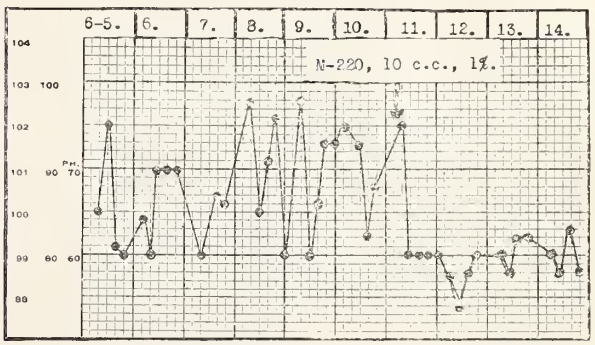


Fig. 6. B. coli septicemia after appendectomy. One intravenous injection of mercurochrome, 10 c.c., 1 per cent, followed by rapid recovery. Case of Dr. E. F. Rose, Spokane, Washington.

following mastoidectomy, in which the blood cultures showed streptococcus and in which it was necessary to use five intravenous injections of 1 per cent solution, totaling 130 c.c. I think that case ought to hearten those who are willing to stop after one or two injections. It shows that often several are necessary in order to get results.

Here is another case of bacillus coli septicemia after appendectomy (Fig. 6). One injection of 10 c.c. of a 1 per cent solution brought the temperature to normal.

This is a very interesting case in which for seven weeks there had been a daily chill and a temperature rising to 41°

Centigrade. The patient was steadily going downhill, until she received three doses of mercurochrome, two being small, and one not very large, after which the temperature promptly returned to normal.

These cases I think are sufficient to show you that in mercurochrome we certainly get a reaction that is very characteristic. We generally get a chill, followed by temperature, and then this great drop which reminds one of the crisis of pneumonia or the crisis that is artificially brought on sometimes by serum or vaccine treatment.

The next case that I want to show is that of a case of pneumonia. We have had a most interesting talk on pneumonia this afternoon, and with some hesitation I bring up this subject.

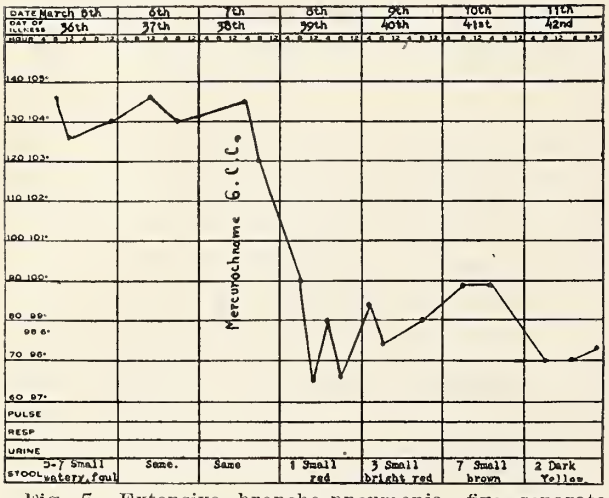


Fig. 7. Extensive broncho-pneumonia, five separate areas of consolidation multiple skin abscesses, severe diarrhoea, and double otitis media. One injection of mercurochrome, 5 mg./kg. followed by rapid recovery.

You have seen the chart of one case that I mentioned a bit ago in which the patient was in desperate condition with pneumonia and who promptly got well. After the publication of that case in our first report, Freeman and Hoppe of Atlanta took up the subject in the Child's Hospital there, and treated forty-six cases in all, and this is the first one of their series. I would like to read, if I may, their description of that first case: "A female, age five and a half years, weighing twelve kilograms, developed measles on January 29, 1924. This was followed by bronchopneumonia and acute otitis media. She had been ill about six weeks, during whic htime her temperature had varied from 102° to 105°. During the fourth week of illness she developed severe diarrhea, having from five to seven foul stools daily. On the thirteenth day of her illness she was in desperate condition. There were five separate areas of consolidation in the lungs, the temperature was 10.6, she was markedly emaciated, both ears were discharging profusely, and she had numerous skin abscesses. The respiration was labored and the patient had become so cyanotic at times that hypodermic injections of epinephrin were required. Hope for her recovery having been abandoned, the physicians decided to try mercurochrome intravenously. She was given five milligrams per kilogram of body weight intravenously (Fig. 7). There was little or no systemic reaction. The temperature fell as if by crisis from 105° to practically normal. She began a rapid and uninterrupted recovery. The stools were stained red for two days, but the diarrhea rapidly disappeared; the skin lesions cleared up. We feel that unquestionably the patient would have died but for the injection. We have never seen a more spectacular recovery."

Dr. Freeman and Hoppe have made two additional reports before the Southern Medical and the Southern Surgical Association, and now report forty-six cases. They say their mortality at the Child's Hospital in Atlanta has been reduced from 38.6 per cent to 8 per cent in the bronchopneumonias of children by intravenous mercurochrome. Fig. 7 is from one of their charts and shows a wonderful drop of temperature after the injection of mercurochrome.

About the same time that we were working on mercurochrome as an intravenous germicide, me decided to try out Gentian violet, the great value of which as an antiseptic had been brought out in our laboratories by Churchman at least ten years before.

Gentian violet, you know, is a remarkable germicide but against Gram positive cocci only, but it is one of the most powerful germicides we have. Churchman did not think it would be of value when used intravenously, but we found after animal experimentation and then on human beings that it could be safely given in doses the same as

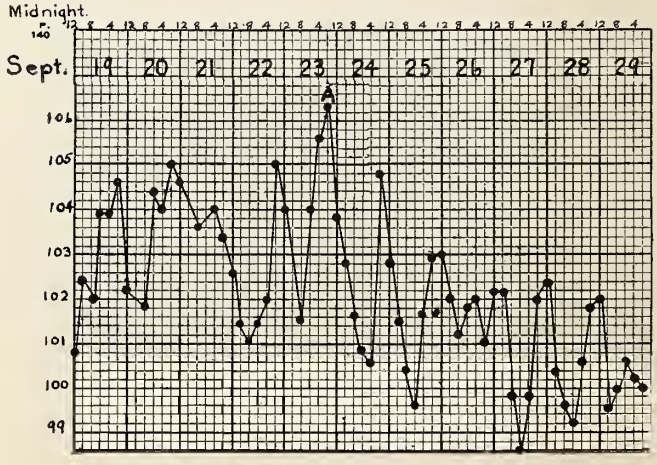


Fig. 8. Staphylococcus septicemia with multiple osteomyelitis; patient almost moribund. Three intravenous injections of gentian violet, 5 mg/kg., followed by sterilization of blood and recovery.

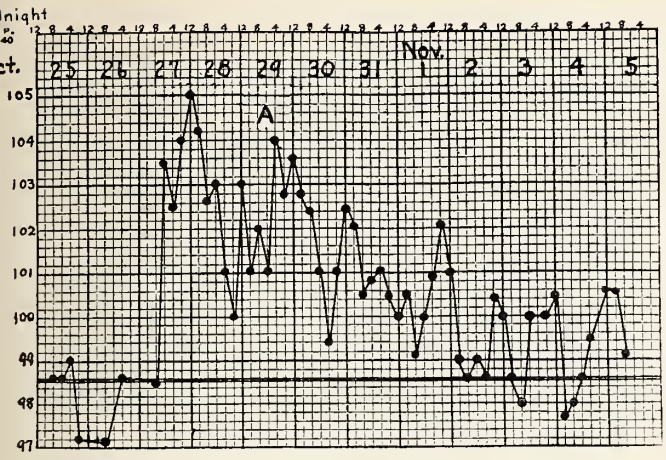


Fig. 9. Diabetes mellitus; staphylococcus septicemia. One injection of gentian violet, 5 mg/kg., followed by improvement.

mercurochrome, five milligrams per kilogram of body weight.

Here is the chart (Fig. 8) of an interesting case of a septicemia due to a staphylococcus (which is a Gram positive organism) with multiple osteomyelitis, seven foci in the long bones of the body. The patient had been operated on but continued to have high fever and was steadily going downhill, and at this point life was despaired of. He was given five milligrams per kilogram of Gentian violet, with this drop and a very early return to practically normal in three or four days, and ultimate recovery. The surgical staff thought the recovery was entirely due to the intravenous injection.

This is another patient (Fig. 9) who had diabetes mellitus with multiple abscesses and a staphylococcus septicemia. It was cured by one injection of five milligrams per kilogram of Gentian violet.

I would be able to present to you about thirty cases with Gentian violet, but I have not the time. I can simply summarize and say that there have been among these some very startling results, but as a whole the use of Gentian violet, even in Gram positive coccus infection, which is the only thing it is good for, is not as good as mercurochrome. I would always advise the use of mercurochrome first and then, if you don't succeed, the use of Gentian violet.

I have a case in hand, a doctor's wife, run over by an automobile, with very extensive multiple infection, in whom it was necessary to use two injections of mercurochrome, one of Gentian violet, one of crystal violet, and two more injections of mercurochrome before we finally got a complete sterilization and a cure.

During the war, in consultation with some of our medical conferes, I had the pleasure of meeting one of the great dermatologists, Dr. Levy-Bing, and he told us that in his treatment of syphilis he had been struck with the fact that cases of gonorrheal epididymitis were often remarkably improved following an injection intravenously of novorsenobenzal. We have quite a number of cases where we have used it intravenously for gonococcus infections, and also for Gram positive renal infections. The reaction is different from the other two drugs. You don't get much febrile change, and as a rule multiple injections are necessary.

You have, of course, the same danger that you have in the treotment of spyhilis, where you use large doses of the arsenicals, in that you may get a dermatitis, but outside of that it can be safely used if care be taken and in Gram positive infections, in general gonococcus infections, it is a drug of undoubted value, but I believe not as good as mercurochrome in the treatment of such cases.

In conclusion, I wish to say as to the dosage we feel that in fulminating cases the large dosage of five milligrams per kilogram should be used, because you are dealing, especially in septicemias, with one of the most serious diseases that the flesh is heir to. It can be repeated at intervals of two or four days, as you have seen, until two, three, four, or even five doses are received. Not infrequently you find albumin and a few casts appear in the urine following these injections. From our animal studies and also autopsies on individuals who have died of septicemia, I feel confident that nephritis is not produced, Dr. Norris of New York to the contrary notwithstanding.

Our pathologists in Baltimore feel confident it does not produce a nephritis. Therefore, we do not hesitate to use it, even when albumin and casts are present in the urine. As a matter of fact, quite a few of these cases I have shown you this afternoon are cases in which albumin and casts were present in the urine at the time it was used, but they cleared up after the use of intravenous therapy.

As to the effect on the organisms, the bacillus coli has been sterilized in 82 per cent of the cases, the staphylococcus in 60 per cent of the cases, Gram positive diplococcus in 67 per cent of the cases, streptococcus hemolyticus in 54 per cent of the cases, streptococcus viridans in almost none of the cases. Streptococcus viridans is one of the most unsuccessful things with which we have dealt, and there are only three cases that apparently were improved as a result of intravenous therapy, one of endocarditis, said to be cured by Gentian violet.

As to the reason for some of these failures, we don't see why they occur, but undoubtedly they are failures, although the cases were quite similar to other cases which

got well. The drug has been used now by practitioners all over this country and in other countries in a great variety of diseases. I have not time to enumerate them, but our statistics are enough to show that some very extraordinary things have occurred in the way of sterilizing infections which heretofore have been thought to be practically always fatal. (Applause).

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PNEUMONIA—MODERN PROPHYLAXIS AND THERAPEUTICS

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I am to speak to you on the subject of the prevention and treatment of pneumonia.

The prevention of pneumonia is one of the most pressing problems confronting the medical profession today. Pneumonia accounts for about 10 per cent of all deaths. The percentage of deaths ascribable to pneumonia rises in certain localities much higher than 10 per cent. In Pittsburgh, for example, for many years, the number of deaths ascribed to pneumonia has been about 25 per cent. Thus far our efforts at prevention seem to have been almost wholly of no avail.

There are, however, methods already applicable which give promise of diminution of the numbers of cases of pneumonia and we have to consider in this conenction (1) that pneumonia is now to be regarded as a contagious disease; (2) the influence of certain infections as a predisposing cause; (3) the importance of overcrowding in increasing its incidence and, (4) the use of vaccination as a preventive measure.

Pneumonia should be regarded as a contagious disease. The evidence for this is the influence of over-crowding in increasing the incidence of the disease and of this I shall have more to say later. The evidence is also bacteriological. Sixty per cent of the cases of lobar pneumonia are due to Type I and II pneumococcus. Type I and II pneumococcus are found only in lobar pneumonia and in the contacts with cases of this type, or practically so, and pneumonia due to these types is, therefore, to be regarded as a contagious disease.

What about the remaining 40 per cent? These cases are due to Type III and Type IV pneumococcus, which are normal inhabitants of the mouth, and the pneumonia in these instances arises by autoinfection from such organisms, normally harbored in the mouth. Animal experiments indicate that when an organism gives rise to disease its invasive properties are increased, and, therefore, it is reasonable to conclude that given a case of pneumonia the acquisition of pneumococci from that case is more likely to give rise to pneumonia in the person acquiring the pneumococcus than when the pneumococcus is acquired from a person who does not have pneumonia. So it is reasonable, regarding lobar pneumonia, to look upon it as a contagious disease. Further, whether it is due to Type I or II, or as is more commonly the case, to Type III or IV pneumococcus, the same may be said of bronchopneumonia, which is usually due to pneumococci.

What remedy shall we apply from this point of view of contagion? Already throughout the states of the Union the reporting of cases of pneumonia prevails, but thus far isolation and quarantine have not been generally adopted. The evidence is now sufficient to warrant and actually to demand, I believe, the use of isolation and quarantine throughout the United States. These measures are at the moment to be regarded as an experiment the result of which cannot be determined in advance, but with a reasonable prospect of success. Already there is evidence in Pittsburgh of a reduction by 600 of the number of cases of pneumonia since the application of isolation and quarantine in the year elapsing since April 1, 1924. Already the neighboring state of Illinois, on March 3, 1925, adopted rules and regulations making pneumonia reportable, isolatable and quarantinable, and it is highly desirable that these measures be generally adopted, and we may look forward not to the elimination of the disease by such means, but to a very considerable reduction in the number of cases.

There is another consideration regarding prevention, and that is that pneumonia is usually a secondary disease, not commonly a primary disease. One may obtain in the history of patients with lobar pneumonia the history of a common "cold" preceding the onset of the pneumonia in about 75 per cent of the cases, and it doubtless happens that the virus of the cold, thus far unknown, carries down and implants in the lung the pneumococcus which gives rise to the pneumonia. This is more apparently true of bronchopneumonia, which is very commonly secondary to "colds", influenza, measles, whooping cough and diphtheria. Control of

diphtheria is already practicable. Control of the other diseases in this group by determining the cause and mode of distribution of the virus at work may be expected to diminish the cases of pneumonia arising secondary to these diseases. We must apply isolation and quarantine as far as possible in these diseases which dispose to pneumonia.

I would call to your minds the very important advances which have been made in the elimination of diphtheria by the Schick test and the detection of the susceptibles and by the toxin-antitoxin mixture the immunization of the susceptibles.

A closely allied subject is that of post operative pneumonia, which follows in 1 to 4 per cent of laparotomies and accounts for about a quarter of all deaths following operations under general anesthetics, and which is, therefore, a very important matter for consideration. These post-operative pneumonias arise more particularly after abdominal operations on the upper quadrant of the abdomen. They arise more particularly under general anesthesia, but they may also arise under local anesthesia.

I have gone over our Massachusetts General Hospital surgical operations to find out the monthly incidence, and it turns out in over 70,000 operations over a period of about 20 years that the post-operative pneumonias are five times more common in the month of February than in the month of July. The incidence rises from July to February and then declines after that.

The obvious remedy in the prevention of pneumonia secondary to operations is not to operate when operation can be avoided upon persons who have an acute respiratory infection, because the history of persons who have post-operative pneumonia suggests that infection in the respiratory tract preceding operation is an important predisposing cause. When operations can be postponed in the face of acute respiratory infections they should be postponed. If operation is imperative, local is to be preferred to general anesthesia. If general anesthesia must be used, gas-oxygen is to be preferred to ether. If the operation can be postponed to the warmer months, it is desirable to do so. It is desirable, also, in the operative procedure to have the masks for anesthesia sterile, to keep the patient warm, and to turn the patient frequently after operation so that we may diminish the chance of post-operative massive collapse of the lung with the consequent danger of infection.

Another matter to consider in prevention is the influence of overcrowding in increasing the incidence of the disease. A large proportion of the cases of pneumonia occur during the colder months of the year, from November to June, and this heightened incidence may be largely ascribed to the closer contact of individuals within doors at this period and consequent transfer of more virulent types of pneumococci from person to person. Under conditions of overcrowding, there have been numerous instances of more or less severe local outbreaks of the disease in all parts of the world, on ship board, in jails and in hospitals and as a succession of cases in the same house. In 1906, there was a high rate of mortality among the laborers employed in the building of the Panama Canal. In 1907, these laborers, previously housed in barracks, were allowed to scatter out along the line of the canal, each man building his own quarters and this dispersion was followed by a striking and coincident drop in the mortality from pneumonia. The army experience during the late war also offers a striking example of the great increase of the disease under conditions of overcrowding incidental to army life. Excluding the influenza period from consideration, pneumonia was nine times more frequent among the troops than among civilians of the same age group. This menacing prevalence of the disease may be ascribed to increased opportunity for contagion in the close proximity of susceptible individuals in barracks, tents and the mess, together with a lowering of resistance from exposure, overwork and fatigue. Though such crowding as prevailed in the army was inevitable in the face of a national emergency, it was nevertheless a serious menace and must be regarded as responsible for the loss of many lives.

It is desirable that the danger of overcrowding be taken into consideration in the program for the prevention of pneumonia. It should be appreciated that overcrowding in civil is more dangerous than in military life as it more constantly operates to increase the transfer of virulent organisms. There should therefore be a persistent effort to improve housing conditions, especially in the cities. The number of persons allowed to occupy the same premises should be regulated. When large bodies of men must be housed in crowded quarters, the danger is lessened by thorough cleaning and airing of the quarters, by head-to-foot sleeping, screening by the cubicle system and by separation by screens at mess. As dust favors the spread of respiratory infection the amount of city dust and smoke should be diminished. In the presence in any city of a menacing prevalence of respiratory infection, mass meetings should be forbidden and the schools should be closed.

There is still another method of prevention, and that is by vaccination, but unfortunately the evidence does not carry us far enough at the moment to warrant its general adoption, and so I shall not attempt to say more about it.

Regarding the treatment of pneumonia: Are there specific methods of treatment? What about drugs? We have a promising drug in ethylhydrocuprein, a derivative of quinine, which unfortunately is too dangerous to use on account of certain dangers to the eye, and therefore cannot be recommended and is not as yet practical. What about serotherapy? We in the east have been studying serotherapy in pneumonia for a number of years, about eleven in all, in our Massachusetts General Hospital Clinic. I won't go at length into this matter. but I may briefly review the evidence in favor of serum. There are in the literature 301 cases of Type 1 pneumococcus pneumonia treated without serum and these may be used as a control group to judge the value of serum, and of these 301 cases 75 died, a mortality of 24.9 per cent. There are in the literature 553 Type I cases treated with serum, with 88 deaths, a mortality of 15.9 per cent. Although these two groups are not strictly comparable, nevertheless, the large size of the series is likely to balance errors from this source, and some diminution of mortality by the use of Type I serum may be assumed. Our own experience indicates that Type I anti-pneumonococcus serum is of more particular value when it is used within the first three days of the illness, and in Boston 47 cases can be collected in which the serum has been used within the first three days, with four deaths, a mortality of a little over 8 per cent.

Should anti-pneumococcus serum, then, be recommended for general adoption? Unfortunately, I don't think it should. There are certain dangers incidental to the use of alien serum, certain rather complicated precautions which must be taken, and I don't believe that it is yet practical. I think it is still, so far as general adoption is concerned, in the experimental stage, and the same thing must be said of the Huntoon antibody and Felton's antibody. These measures have great promise for future success, but are not yet wholly practical.

What about vaccination in the treatment of pneumonia? Vaccination has been used and is being used by certain men in the treatment of pneumonia. Vaccination as a preventive of pneumonia has great promise, but there is no evidence, direct or indirect, regarding any disease that a vaccine is capable of curing an existing infection. There is always the danger that by using the vaccine and putting dead organisms under the skin we may unduly tax the patient's resistive powers, and so it is undesirable, it seems to me, to use vaccination in treatment.

So much, then, for the specific measures which need to be considered in the treatment of pneumonia.

Regarding the general management of a patient with pneumonia, I don't intend, before such an audience as this, to go into detail in such matters, because it is familiar to you all. It is, of course, desirable that the patient be in bed and absolutely at rest, that his strength be spared by every possible means, that he be turned and not turn himself, be fed and not feed himself, that he be given an abundance of liquid intake, perhaps two to three liters of fluid, to assist in the elimination of toxic material. We should pay particular attention, also, to the intestinal tract to avoid, if possible, that very troublesome complication, abdominal distension, and it may be necessary that a daily enema be given.

I spoke of turning the patient. It is desirable to diminish the chance that he will develop massive collapse. Massive colapse of the lung, in our experience, has occurred in 2 to 3 per cent of cases of pneumonia. It is an undesirable complication and is due, doubtless, to plugging of a bronchus with retained secretion. Turning the patient from side to side may prevent that complication.

It would seem desirable in cases of pneumonia for the attending physician to examine the patient once a day and to have in mind important complications, especially pleural effusion, because its early detection may be of considerable importance in the outcome; to have in mind, also, in children, otitis media, which is very likely in young patients to be insidious and not discovered unless particularly looked for, and also to have in mind abdominal distension, and if the patient becomes somewhat distended, the attempt should be made at once to relieve the distention by enemata and other means. We should particularly have in mind, then, those complications against which are measures of relief that may be successful.

I spoke of pleural effusion. The diagnosis is sometimes difficult. We are assisted very much by the X-ray in conjunction with physical signs. Suspecting it, we should make an exploratory puncture. If the exploratory puncture is successful in demonstrating fluid, the next step is the examination of the fluid and this should be done before a decision is made as to the method of treatment. Pleural fluids complicating

pneumonia may be clear or cloudy or frankly purulent. It is desirable to take the specific gravity of the clear or cloudy fluids and in any case to examine the fluid microscopically and by culture. A specific gravity at or above 1018 is evidence in favor of an exudate rather than a transudate. Microscopic examination of the sediment may show that the cells are chiefly lymphocytes and the culture may fail to show growth. Fluids of this character, with a specific gravity at or above 1018, may be due to relatively mild pleuritis of pneumococcus origin or they may be tuberculous. If the fluid is small in amount that which is left after the tapping may absorb without further interference. With an inflammatory turbid fluid containing an excess of polynuclear cells in the sediment and sterile by culture, removal by tapping may be all that is necessary. More radical interference is usually necessary, however, in those fluids which contain abundant or necrotic pus cells and pneumococci on cultivation. Frankly purulent fluids without demonstrable pneumococci in stained specimens and sterile by culture may be due to pneumococci which have died out or may be tuberculous and it is undesirable to treat them by open incision. When tuberculosis is the underlying cause, a persistent sinus is likely to follow open incision and drainage.

Although thoracotomy with costatectomy is the operation of choice in the presence of chronic and encapsulated empyema, it is not to be considered with fresh empyema complicating pneumonia owing to the danger of lung collapse when the thorax is opened and consequent death of the patient from embarrassment to respiration. It is nevertheless true of metapneumonic empyema that constant free drainage is essential for prompt and permanent cure, but lives which would otherwise be lost may be saved by a more conservative procedure while the empyema cavity is walled off by delicate adhesions and the resort if necessary may be made later to open incision and drainage. In the patient already seriously ill with pneumonia, a complicating empyema adds to the danger and it is highly desirable to employ conservative surgery, such conservative surgery as Crile emphasized last night regarding the gall bladder, and not to do harm to a patient whose margin of safety is already very small.

In the presence, then, of empyema complicating pneumonia and due to other organisms than the tubercule bacillus it is desirable to evacuate the pus, not by any radical operation, but by such conservative means as air-tight drainage which can be done under local anesthesia and avoids shock and the danger of lung collapse. The most satisfactory method is I think the introduction between the ribs of a trocar, the introduction into the cannula of the instrument of a catheter and then air-tight drainage through the catheter by repeated aspiration or drainage of the fluid into a bottle, maintaining air-tight connections all the time, the bottle being upon the floor.

It may be well, in connection with the complications of pneumonia, to say a word about the combination of the disease with diabetes. Owing to the danger of the development of acidosis the treatment presents a difficult problem, which is, however, made somewhat less difficult by the discovery of insulin. The fluid intake should be kept up to at least two to three liters and tap water may, if necessary, be given by rectum. There should be a daily evacuation of the bowels. Fat should be eliminated from the diet and carbohydrate given in the form of skimmed milk, oatmeal water gruel, and orange juice. If other than liquid nourishment can be taken, shredded wheat, Uneeda biscuit and potato may also be added. Successive specimens of urine should be tested for sugar, acetone and diacetic acid. With glycosuria without acid bodies, insulin may be given in 15 unit doses repeated often enough to keep the urine almost but not quite free from sugar. It is safer to maintain a slight glycosuria than to run the risk of hypoglycemia by overdosage with insulin. In the presence of acidosis larger amounts of insulin may be needed. If the urine cannot be obtained the blood sugar and the carbon-dioxide combining power of the blood should be determined.

Regarding certain special symptoms in pneumonia and their treatment, fever in pneumonia does not ordinarily demand treatment, but hydrotherapy may be of comfort to the patient when the temperature is 102½ or over, sponging with water of 75 or 80 degrees.

Pleural pain is the most distressing symptom requiring treatment in pneumonia. Mild measures, such as an ice-bag, a hot water bottle, a swathe, may suffice to diminish the pain and make it tolerable. It is the general custom, in such cases, to give opium in some form, and this may be desirable, but it must be remembered regarding the use of opium in pneumonia that it has its disadvantages as well as its advantages. The advantage is that in diminishing the pain which fatigues the patient and disturbs his sleep, it improves the situation by the relief of this symptom. On the other hand, opium subdues the impulse to cough. To subdue the

impulse to cough in pneumonia is likely to lead to the retention of secretion in the bronchi. To have material retained in the bronchi is likely to increase the incidence of massive collapse, and to retain secretion in the bronchi is likely to increase the danger of spread of the pneumonic process, and so in the use of opium for the relief of pain or for the subduing of cough in pneumonia, we should have its possible dangers in mind. It is certainly desirable to use it in certain cases, but it is desirable, always, to weigh the advantages against the disadvantages.

What about cardiac weakness in pneumonia? We have learned regarding cardiac weakness in pneumonia that it is not an essential feature of pneumonia at all, that the cyanosis of the disease is not necessarily to be regarded as an indication of cardiac weakness, that the tachycardia of the disease is a feature of the general infection, and in general it may be said that it is not necessary to treat cardiac weakness in pneumonia. Digitalis in our experience has not proved of great value in the treatment of pneumonia, speaking in general. Its use may well be reserved, I think, for those uncommon instances in which there is auricular fibrillation complicating pneumonia, and not as a routine. (Applause).

THE CONTACT OF THE SURGEON WITH THE PROBLEM OF CANCER

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The surgeon is constantly in contact with every phase of the cancer problem from those that pertain to the earliest precancerous stages, such as irritations, chronic infections, X-ray and radium burns—lesions which are not yet actual cancers but which are recognized as potential cancers,—on through every phase of definitely established cancer to the stage of inoperability; and because of his first hand knowledge of all these phases of cancer and of precancerous lesions, the surgeon is called upon to make weighty decisions as to the method of dealing with each individual case. It is therefore important that he maintain a standard of procedure—a flexible standard, however, which may be modified or changed in the light of accumulated experience.

GENERAL CONSIDERATIONS

Precancerous Lesions — Among precancerous lesions the surgeon must decide what is the best means of dealing with keratoses, especially in the exposed skin of aged patients. He must offer the best method of dealing with old scars, exposed to the irritation of clothing or to physical contact with the tools of labor. He must know the best method to apply to cracks and fissures of the lip, to ulcers of the tongue and of the cheek, where the rough surfaces of teeth or poorly fitting dental plates may be a constant source of irritation. He must decide which is the best method to pursue in the case of a benign papilloma of the larynx or a bronchial tumor in the cancer period of life. He must decide what to do in the case of a foetal adenoma of the thyroid; in the presence of senile changes in the breast or of cysts or other benign tumors of the breast. He must know what is the best method of treatment for chronic ulcers of the stomach or rectum. He must decide upon the safest procedure in the case of a precancerous lesion of the cervix of the uterus, especially in the case of chronic inflammation of the cervix associated with an old laceration. He must decide what is the best course to pursue in cases of growing warts and pigmented moles; in cases of chronic enlargement of the lymphatic glands in any part of the body; in cases of ulcers and scars on the extremities. All of these conditions at the time of consultation may be presumed to be still benign but they all carry the possibility of degeneration to malignancy.

In making his decision as to the course of action in the presence of any of these varied lesions, the surgeon is guided by two fundamental principles:

1. Any precancerous lesion should be completely eradicated or left alone. Surgical history presents too many cases in which disaster has followed the incomplete removal of an apparently benign but potentially cancerous lesion. Throughout the whole series of precancerous lesions the irritation of partial removal added to the irritation of the condition itself is most dangerous. As specific examples may be cited the disasters that have followed the incomplete destruction of a pigmented mole by the use of the electric needle, which has caused a precipitation and dissemination of a fatal melanoma; the production of an inoperable cancer of the larynx by the irritation caused by the repeated removal of benign papillomata; the malignant sequelae of partial or incomplete destruction of an ulcer on the tongue; of the partial removal of precancerous benign tumors of the breast, or a chronic cystic mastitis; of the partial removal of papillomata of the bladder, of keratoses of the face or of small ulcers of the margin of the nose; of an incomplete operation upon a chornically inflamed lacerated cervix; of the partial removal of scars or of superficial ulcers. These present a long list of tragedies

known to have been precipitated by an incomplete surgical attack which was employed either because of want of appreciation on the part of the surgeon of the grave danger of partial removal or because of insufficient skill and judgment in the execution of what often is a simple operation.

It is one thing to attempt to cure a patient with a cancer. One can but do his best even if the disease has gone too far and the operation is unsuccessful. It is another thing for the surgeon to precipitate a cancer on account of his lack of forethought or understanding, precipitating a benign lesion into a malignant lesion.

I repeat, therefore that the primary principle in the treatment of precancerous lesions, whatever their character, is that they should either be completely removed or left alone.

2. The second fundamental principle is that even when a precancerous lesion has apparently received adequate treatment, the field should still be inspected at intervals, just as after the removal of an established cancer.

In making his decision in any individual case as to whether or not a precancerous lesion should be excised, the surgeon should bear in mind three important factors: the age of the patient; the familial history of cancer, and I am beginning to believe that we must also take into account the possibility that there is an inheritance factor to be considered; and the degree of probability that adequate relief will result from the removal of the existing irritation.

For the removal of certain of these lesions radiation with radium or the X-ray is preferable to a surgical operation. Thus, radiation is the preferred treatment for chronic benign changes in the tongue and for superficial lesions of the face, especially those about the nose and margin of the eyes in elderly subjects. When the irritation is caused by jagged teeth or ill fitting plates, the patient should be referred to a good dentist.

For the treatment of chronic cervicitis, radium may be adequate. Moles should be totally destroyed either by the cautery or by wide excision with the knife. In the treatment of chronic ulcer of the stomach, removal by wide excision is the method of choice.

Operable Cancer—As for the surgeon's contact with an established but still operable cancer, it involves many difficult decisions. Generally speaking, the superficial cancers of the skin are dealt with satisfactorily by radium or by the X-ray. An early cancer of the lip is usually successfully treated by radium; primary cancers of the tongue and of the buccal cavity may be treated by radiation or perhaps better by diathermy or the cautery; but in every case an advanced cancer of the lip or of the tongue should be excised and the related lymphatic glands of the neck should also be removed by careful and wide block excision.

Whereas it is admissible and perhaps best to destroy the local lesion of the lip with radiation, we now have an abundance of experience to show that we must not expect anything from radiation in dealing with the glands in the neck. Local radiation in the local lesion may be indicated; but radiation of the involved lymphatic glands of the neck should never be done for it cannot be depended upon. It means simply that an adequate surgical operation is delayed. In cases in which the glands of the neck have been radiated and the patient has recovered, it simply means that the glands of the neck probably were not involved.

Cancer of the larynx calls for laryngectomy which is one of the most successful operations for the permanent cure of cancer, because, as nowhere else in the body, the cancer in the larynx announces itself by every spoken word of the patient from its earliest beginning until the patient can no longer speak. What a wonderful thing it would be if a cancer of the stomach would start to declare itself as does cancer of the larynx. Moreover, in cancer of the larynx there is practically no lymphatic involvement, for the reason that cancer of the larynx is as it were confined in a box through whose walls the cancer cannot penetrate, for cancer cannot penetrate through hyalin cartilage. There is no other situation in the body in which the cancer declares itself immediately and from which it cannot be disseminated into the lymphatic glands. Therefore, the results of larygectomies are excellent as far as the permanent cure of the cancer is concerned. The one great difficulty is the loss of voice.

Cancer of the breast requires the classical and radical operation described by Halsted; cancer of the stomach requires as wide a resection as possible; cancer of the large intestine requires a two stage operation with wide excision. In the earlier days when we removed the entire growth at one operation, even though there was present an obstruction of the bowels, (and most cases do not come to the surgeon until there is obstruction) we had an appallingly high mortality rate. The principle that one should bear in mind is that it is not possible to get a union in any tissue if it is under pressure and at the same time certain degree of infection is present. Therefore, our high mortality rate was due

to the fact that with distension, and therefore traction, plus the local infection, it was impossible to get a sound union and consequently there resulted leakage and death from peritonitis.

These difficulties, however, are simply met by a two stage operation, the first stage of which provides for drainage. After a week or ten days the second stage can be safely performed and there will be no tension since the drainage (provided by a colostomy or cecostomy) is above the point of obstruction. Cancer of the rectum calls for wide excision combined with radiation. Cancer of the cervix is best treated by radium and the X-rays alone, provided only that the radiologist has sufficient experience and proper control of the respective doses of radium and of the X-ray which should be administered. It is also entirely possible that in certain cases of cancer of the rectum, radiation, by a combination of radium and X-ray through the different portals of entry may be sufficient just as in cases of cancer of the cervix. Cancer of the bladder requires free excision and fulguration.

Inoperable Cancer—In the case of inoperable cancers, the role of surgery is largely palliative. Briefly the following procedures are indicated: for inoperable cancer of the larynx, tracheotomy; for inoperable cancer of the stomach, palliative gastrojejunostomy; for inoperable cancer of the cervix or of the uterus, radiation; for inoperable cancer of the rectum, colostomy, and in some cases; radiation.

SPECIAL PROBLEMS

In addition to the groups of precancerous and cancerous conditions enumerated above, certain types of cases require special consideration.

Cancer of the Thyroid—The treatment of carcinoma of the thyroid like the treatment of simple goiter is mainly a problem of prevention. In our total series of 6949 thyroidectomies there has been a carcinoma of the gland in 139 cases. It is significant to note that in about 95 per cent of these cases the carcinoma was due to a degeneration of a foetal adenoma; and inversely that approximately 10 per cent of all foetal adenomata seen at operation are cancerous. For these reasons I believe that a foetal adenoma should always be removed. Can we tell a foetal adenoma in advance? We can, because in the first place the patient is born with it. Secondly, it is a discrete tumor, well rounded and separated from the rest of the gland, it is usually unilateral, and is freely movable. Iodin has no effect upon a foetal adenoma and moreover, in these cases iodin often produces myocarditis and hyperthyroidism. A malignant foetal adenoma is always removed if possible; if it cannot be removed it is treated with radium. A foetal adenoma is the easiest of all types of goiter to remove. Simple adenoma is generally multiple; foetal adenoma is usually a well defined tumor and is present on one side only. A patient with an inoperable carcinoma of the thyroid gland will live without radiation for about one year. As for the length of life with radiation, there is no basis upon which to found a final judgment. Sometimes the mass disappears; in other cases, radiation does not seem to do any good. In cases in which the patient is suffering from obstruction and resultant partial asphyxiation, a decompression operation will serve to give temporary relief, the operation being followed by radiation. In such cases an acute myxedema may develop but this myxedema is readily met by the administration of thyroid extract.

Tumors of the Breast—Perhaps the most difficult decision which the surgeon has to make is the proper method of procedure in the case of the apparently benign breast lesion. In the case of a definitely established cancer of the breast, as stated above, the problem is simple enough but what should be the procedure in the case of an apparently benign condition. In the case of other organs and tissues, a possible precancerous lesion, if it is accessible, can be removed without question and in doubtful cases the excision can be radically extended so as to block the avenues of extension. In the case of the breast on the other hand the removal of the avenues of extension involves a peculiarly extensive mutilating operation. That a benign lesion of the breast should be removed is certain; the problem is, how extensive should the operation be made. Among the so-called benign breast lesions which are possibly precancerous are diffuse hypertrophy, traumata, chronic mastitis, and cysts as well as the so-called benign tumors. The potential malignancy of trauma is indicated by the figures of Hoffman, who in an analysis of 314 fatal cases of cancer of the breast found that trauma was the exciting cause in 44 or 14 per cent. Diffuse hypertrophy while generally benign cannot be considered entirely safe; and it is well known that both well localized and generalized cystic conditions are too frequently followed by malignant degeneration to be considered entirely safe. And in regard to so-called benign tumors, as Deaver has stated: "Tumors of certain types having certain structures, are constantly harmless; those of other types, having another structure, are persistently invasive, destructive

and constantly fatal. Unfortunately these are the extremes of a series between which lie many tumors that may or may not be harmful, or whose structures may fail to give a clue to their true disposition."

In view of these considerations, while we are far from recommending the extensive radical operation in every case of breast tumor, the importance of frequent examination of the breast after the local excision of the tumor should be emphasized as well as the need for a meticulous pathological examination of the tissue which is removed with immediate radical operation if the lesion shows any suspicion of malignancy. Every case should be strictly individualized and the decision as to the final procedure should be based not only upon the report of the pathologist, but even if that is negative, the age of the patient, the previous history of lactation or of trauma, together with the history of development of the growth, should be subjected to the clinical judgment of the surgeon.

An interesting result of a recent study of our total series of breast cases by Dr. Bunts has shown an "apparent reversal during more recent years of the incidence relation between benign and malignant tumors. It would seem that this might well be attributed to the fact that now earlier consultation is sought by women who discover an abnormal condition in the breast so that it is first seen and the operation performed while the tumor is still benign."

As to the role of radiation there is not a sufficient uniformity in the reported results to form any final basis for judgment. It is certain that radiation by itself alone cannot be compared with surgery and our own statistics have definitely proven that intensive post-operative radiation is distinctly contraindicated.

Carcinoma of the Stomach—A cancer of the stomach is characterized by a rapidity of growth and an extent of lymphatic involvement so that the 'dead line' of inoperability is reached very early in its progress. A period of a few weeks may be sufficient to carry the patient from an operable to a completely inoperable condition and consequently in the majority of cases the patient comes to operation too late for possible cure. When operable, as in the case of carcinoma elsewhere, resection with the widest possible excision of the growth is the indicated procedure. Blood transfusion, saline injections, nitrous oxid analgesia, the application of hot packs and divided operation may suffice, however, to carry through many patients in whom the prognosis appears to be hopeless but in whom the anatomical possibilities of operation have not been passed.

In many cases the diagnosis of cancer is made when the lesion is an ulcer. The relation between ulcer and cancer of the stomach remains to be finally established, but it is probable that cancer is preceded by ulcer in not more than 10 per cent of the cases. Even this lo wpercentage is suffiicient however to warrant the removal of the ulcer by operation.

Carcinoma of the Intestine, Sigmoid and Rectum—In addition to the general statement above regarding carcinoma of the large intestine and rectum, the following special considerations should be offered. It should be borne in mind that radiation is of little avail in the treatment of lesions of the abdominal viscera. For cancer of the small intestine—which is of very rare occurrence, of the cecum, the transverse colon, the descending colon, or the sigmoid, surgical treatment, therefore, is indicated the operative management as in cases of carcinoma of the stomach being directed to the utmost conservation of the resources of the patient; and as in the former case, transfusion, saline infusions, divided operation and nitrous oxid analgesia may suffice to carry through the apparently hopeless patient.

Carcinoma of the Uterus—I doubt whether a wider diversity of opinion regarding treatment exists in any field of surgery than in the treatment of carcinoma of the uterus. Until within the last year or two this could be said regarding carcinoma of the cervix also. During the past few years, however, the accumulation of statistics in regard to the value of radiation of carcinoma of the cervix has developed to such a degree that its pre-eminent value appears to be established. In the case of carcinoma of the cervix, therefore, we are turning over all of our cases to radium and deep X-ray therapy, since there are so many portals of entry for the X-rays, and the cervix is so readily accessible for radium implantation that the entire region may be reached without endangering the abdominal viscera. As for carcinoma of the fundus, however, we still advocate vaginal hysterectomy in all cases.

Cancer within the Genito-Urnary Tract—In general reliance must still be placed upon surgery for the treatment of carcinoma of the genito-urinary organs. In some cases carcinoma of the kidneys in children will be reduced by deep X-ray therapy but the radiation must be followed later by surgry. In the case of deep seated bladder tumors, radium has seemed to prevail in certain cases but here also the results are still too uncertain for radiation to be used routinely. Postoperative radiation is employed in

many cases but more because it is hoped that it may be of avail than because of any definite results.

SUMMARY

In general the present status of the surgeon in relation to the treatment of carcinoma may be summarized as follows: Complete removal when possible of the precancerous lesions, otherwise absolutely no treatment; the radical operation for established cancer if operable; palliative surgery or radation or both if inoperable. Our present judgment regarding the treatment of cancers of the various organs and tissues may be summarized briefly as follows:

1. *Skin*—radiation, except in cases of pigmented moles which should be excised.
2. *Buccal surfaces* — mucous membranes of mouth—excision; early cancer of tongue, —electric coagulation or actual cautery; early cancer of lip—radium; late cancer of tongue or lip—excision plus block dissection of glands.
3. *Larynx*—for intrinsic carcinoma, laryngectomy plus postoperative radiation; for extrinsic carcinoma, block dissection plus radiation if possible, tracheotomy plus radiation if inoperable.
4. *Thyroid* — thyroidectomy plus radiation if operable; decompression plus radiation if inoperable; prevention by excision of foetal adenomata.
5. *Esophagus*—gastrostomy for feeding plus radiation.
6. *Breast*—radical operation. The value of radiation is still sub judice.
7. *Stomach*—resection if possible; gastroenterostomy if inoperable.
8. *Intestines, sigmoid and rectum*—colostomy plus radical operation if operable; colostomy plus radiation if inoperable.
9. *Uterus*—for fundus, radical operation; for cervix, radiation.
10. *Genito-urinary organs*—operation plus post-operative radiation in selected cases.

THE PROBLEM OF MALIGNANT DISEASE AS MET BY THE INTERNIST

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It seems proper that a general discussion of the problem of malignant disease should be opened by an internist. For whatever of hope may fall to the lot of the patient with malignant disease must arise at the present time from early diagnosis and early treatment. The internist sees the patient before the surgeon—probably in most instances before the specialist; and it is his constant job to be on the lookout for malignant disease, his duty to stand at attention ready to pick out those small symptoms, those minor signs which added together may paint the picture of malignant disease. Were the early symptoms and signs of cancer easy to recognize, the internist's job would be correspondingly easy. Unfortunately one of the tragedies of man's effort to combat cancer has resulted from his inability to discover the invader until after the invasion has spread to outlying territories. It is of no avail to the patient with carcinoma of the stomach to wait until a supraclavicular gland signals the tell-tale evidence of general invasion; yet it certainly is no easy job to pick out the cancer patient from the many others whose more or less vague gastric symptoms may be due to one of many causes. Especially in dealing with cancer of the internal organs the internist has a peculiarly difficult undertaking, one more nearly specific to his calling than cancer of the skin or external organs. A tumor of the skin or of the breast is visible to the patient, who usually has been educated sufficiently to recognize the significance and the danger of a tumor anywhere. Such a patient fears cancer and seeks surgical advice. On the other hand, of course, it is a common experience that vague internal symptoms are neglected by the patient until the shock of severe pain or the spectacular onset of a hemorrhage brings a too tardy realization of illness. Thus a patient with diabetes mellitus may for months show increased thirst, increased appetite, polyuria and steady loss of weight, and yet not consult a physician until the intense itching of a pruritus vulvae or the pain of a carbuncle sensitizes her or him sufficiently to produce a realization of illness.

Since the title of this discussion involves the term "internist," perhaps it will be excusable to inject here some words on what an internist is or should be. No where in medical work are the peculiar qualifications of an internist more needed than in the diagnosis of early cancer; these qualifications may be summarized into a state of mind. The state of mind is a combination of keen observation, logical deduction, psychological insight and scientifically controlled imagination. The results of his study of a case must be harmony, a color design with artistic values, a novellete with logical conclusions. If his observed facts cannot be constructed into a logical diagnosis completely explaining the symptoms and course of the patient's illness, he can then exercise his imagination controlled by his scientific facts. Possessing this state of mind, he is unwilling to let loss of weight and inability to eat meat pass with

a diagnosis of "gastritis", he will suspect a latent cause. He will not accept any explanation of the frequently vague neurological manifestations of metastatic carcinoma of the spine without a thorough realization of their possible significance. In other words, his state of mind must be that of the detective, always ferretting, always suspecting. Frequently the suspicion of malignancy is as much as the observed facts warrant; then he will have to call into court the various specialists. From the scientific as well as practical side of the question successful team work between the internist and his colleagues is necessary in the early diagnosis of cancer of the internal organs.

Speaking of the internist in office work, certain difficulties may arise in the practical execution of this general plan. Not all patients can be run through the mill of diagnostic machinery; reasons too numerous to mention prevent the carrying on of our best laid plans. Police powers are not ours; the office frequently is a transient stopping place. The suspicion of cancer may be aroused, some member of the family warned, plans all made for an investigation, and the patient disappears. He may temporarily feel better, he may go to a more optimistic colleague and thus lose valuable time; many patients prefer the dangerous smile of optimistic charlatanism to the grave dignity of honest effort. Others are appalled by the possible expense and disappear without explanation. Not all patients are willing to go to a hospital or institution for diagnostic procedures until it is too late. In short, for some reason or another the very patient whose symptoms and signs suggest cancer but from whom for excellent psychological reasons the suspicion is best withheld is the one who may get away from control.

It is a truism to say that at the present time no specific test for malignant disease is known, and the seeing and feeling of the tumor is the only sure diagnostic sign. In cancer of the internal organs one of the greatest difficulties lies in the non-specificity of the early manifestations. Gastric carcinoma when absolutely proved has usually passed the stage of possible cure. Are there any symptoms or signs which may suggest the possibility, any procedures which may point to the diagnosis? In office practice it is at times exceedingly difficult to pick out from the array of "dyspeptics" those patients whose symptoms and physical examination alone are formally crystallized into diagnosis. Therefore in all patients with gastric symptoms a study of the gastric secretion, of the stools, and careful investigation by the X-ray should be instituted. A simple test meal removed in forty-five to sixty minutes has given us as much information regarding gastric secretion as more elaborate studies; while the motor meal gives information slightly different from the X-ray. In roentgen work I believe the best results accrue from the combination of fluroscopic and plate studies. Analyzing possible results from all studies we must come to the conclusion that as no single symptom or sign is specific, so no group of signs is specific unless a tumor be palpable. Anacidity occurs in many conditions, blood in gastric contents or stool merely means an ulcerated surface, and even the X-ray cannot infallibly differentiate carcinoma from ulcer. The conclusion seems inevitable, that, whenever doubt arises, operation is indicated; and as I have already said, doubt should arise easily and without too much hesitation. I recall one patient whose picture fitted in perfectly with the sketch just given. He was an extremely nervous man of about 50, on whom I could fasten no definite diagnosis. As a result of extraneous circumstances he was not operated on. The temporary improvement so often seen in these patients ensued, he disappeared, later to fall into the hands of a surgical colleague with an inoperable cancer of the stomach.

Although any discussion of carcinoma of the stomach might be ended with a note of pessimism, the same cannot be said of carcinoma of the intestines. Of this disease it can fairly be said that early diagnosis may lead to brilliant cures. The annular carcinoma usually of older persons may lead to acute intestinal obstruction; it is up to the internist to make a correct diagnosis and see that proper surgical intervention is provided for. I have seen a number of such patients who without preliminary warnings of an obstruction suddenly found themselves unable to have a bowel movement. Digital examination of the rectum revealing no fecal impaction, carcinoma must immediately be suspected. In some cases the tumor was palpable, in others after observation for a few hours the gas distention of the colon was seen to end abruptly even though no definite mass could be palpated. In none of these cases were any of the general signs of malignant disease found; there was no anemia, no weakness, no loss of weight. In most of the cases which I have seen the constipation was sudden; although of course I have also encountered the more classical types with gradually increasing constipation, gradually diminishing volume of bowel movement with narrowing of the caliber of the fecal tube.

The internist seeing such cases is com-

mitting a serious error if he does not suspect carcinoma, and is doing worse if he attempts violent purgation. Purgation to such a patient is what morphine is to the patient with an acute surgical abdomen. When the possibility of carcinoma is not forgotten and the physician can control his patient, mild catharsis supplemented by enemata seems justified as a means of establishing a diagnosis. The opaque enema in the X-ray room will usually clinch a diagnosis. And remembering the brilliant results of surgical interference the delay for diagnosis must not be prolonged. I saw with Dr. Schiller a severe diabetic who had suddenly developed intestinal obstruction from a palpable carcinoma of the descending colon. He was in diabetic coma, but judicious rapid treatment of the diabetic condition put him in condition for a colostomy and subsequent removal of the tumor.

The case for malignancy is not so clear when the outstanding symptom is diarrhea. Here I want frankly to confess to an increasing fear of persistent bloody diarrhea in adults. Every patient I encounter with this symptom receives my utmost respect, and every possible procedure is used to establish a diagnosis. Yet I have seen patients on whom careful examination in every way —including of course digital, proctoscopic, and roentgen ray with the opaque medium taken by mouth and by rectum—failed to show a cancer which later was found. The last diagnosis to make is ulcerative colitis, which it seems to me is a comparatively rare disease in temperate climates. Roentgenological evidence of disease of the colon is not entirely satisfactory, but colitis associated with X-ray evidence of a narrowed lumen or a filling defect at one spot usually is not colitis. Although I do not know of any specific evidence of malignant disease of the bowel other then feeling or seeing the tumor it is my opinion that discontent with one's diagnostic skill in this class of cases will often lead to the correct diagnosis.

Much dispute still arises concerning the proper treatment of diseases of the gall-bladder. Surgeons generally believe all cases should be operated on; medical men are on the whole inclined to be more conservative and to advise operation for certain definite indications. If an adherent of the conservative policy the internist has always to bear in mind the possibility of carcinoma, and during his period of watchful waiting he should emphasize the watching, and cease waiting the moment any symptoms or signs arise which even remotely suggest malignancy. The persistence of jaundice, undue loss of weight, increasing anemia make it unnecessary and unwise to await the palpation of a carcinomatous mass. A similar state of affairs is met with in diseases of the thyroid gland. Unfortunately the current practice of iodine medication is not an unmixed evil; the brilliant results immediately following its exhibition are often lost by a calamitous chain of evil effects in cases of thyroid intoxication. If the feel of the thyroid suggests the possibility of carcinoma iodine medication should be used, if at all, merely as a measure of pre-operatve safety.

It is not outside the scope of the internist to take part in the general cancer campaign, to look for malignant disease of the external organs and to urge upon his patients the importance of early examination for any symptoms of disease. He should "spot" a breast cancer and at least suspect a sarcoma of the long bones when he meets one.

Patients passing through an internist's office complain of a large variety of symptoms, often requiring expert attention of specialists in other lines. Hematuria unassociated with any of the general diseases characterized by this symptom must be referred to a competent urologist for an explanation of the bleeding. Hypernephromata and other kidney tumors may be discovered by the internist, but his surely is not the job of final diagnosis. This is also true of diseases of the tubes, ovaries, and uterus. The internist may see or feel an ulcerating carcinoma of the cervix, but it is the better part of wisdom to recognize in advance the improved touch of his gynecological colleague.

Malignant disease of the lung and pleura —primary or metastatic—will receive early recognition, since the internist remembers his right hand in chest diagnosis—the roentgenologist. A firm believer in using all laboratory procedures as accessories to the senses in diagnosis, I nevertheless am convinced that well taken X-ray plates of the chest properly interpreted are absolutely necessary for a proper understanding of the clinical pathology of diseases of the lung and pleura; under such conditions not only is clinical evidence corroborated, but very frequently new evidence is added, and sometimes unsuspected malignant masses uncovered.

It will not do to continue indefinitely with a discussion of the various systems, but something must be said about metastases, about neurasthenia and about hysteria. A few years ago I saw in this state with Dr. Armstrong a woman with a peculiar cough. Careful history taking brought out the fact that some small intestinal tumor had been removed a few years ago; substernal dull-

ness was increased, an X-ray plate showed what we believed might be a metastatic carcinoma. Later history proved the diagnosis. I have seen neurasthenic symptoms in a woman "cured" of a carcinoma of the breast. Without local recurrence there was plenty of evidence of a generalized metastatic carcinomatosis. Two poor "hysterical" females were seen in quick succession, one came to autopsy with a tumor of the brain, the other developed Brown-Sequard paralysis and died suddenly of a metastatic embolus. The points of this paragraph are simple. Metastatic malignancy may be seen without local recurrence; malignant disease of the central nervous system may produce indefinite nonfocal symptoms. In either case the diagnosis may not be suggested unless the internist is suspicious and thorough.

Mention has already been made of the diabetic patient who developed intestinal obstruction from a carcinoma of the colon. The physician who saw the patient before Dr. Schiller had not recognized the lesion, and believed that all the symptoms were of diabetic origin. This would not have happened had the first physician followed the creed of the internist which has already been described. A patient with any disease can develop cancer and at times it takes considerable acumen to recognize that a given collection of symptoms and signs may have dual etiology. This is especially true of patients whom we have been seeing steadily; diabetics and nephritics run long and steady courses, but at any time the hurdle of malignant disease may be met. Again suspicion that the run is not according to form may direct attention to the change of jockeys. A woman entered my ward at the Michael Reese Hospital with symptoms referable to a completely decompensated heart. My associate, Dr. Meyer, did not think that the peculiar pallor of the skin and mucous membranes was due to heart disease and his search for malignant disease was rewarded when digital examination of the rectum revealed a carcinoma.

These rambling remarks may be brought to a conclusion by a brief review of the suggested points. The problem of malignant disease as met by the internist is a problem of early diagnosis. The early symptoms of cancer of the internal organs are vague and usually indefinite; the state of mind of the internist must be one of constant suspicion of a possible malignant etiology of vague symptoms suggestive of cancer. Suspicion initiates complete study, and some early cancers otherwise overlooked will be brought to light.

PRIMARY AND METASTATIC CANCER OF THE HEAD

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Much that has been said previously by the other speakers has taken a great deal of my thunder away, particularly does this apply to the subject of the last speaker for we all know and are learning more to know that early diagnosis of malignancy is the essential thing in these conditions as is also the early treatment.

I have some lantern slides to show after I get through with my introductory remarks, and I am going to lay special emphasis on several of the cases of carcinoma of the larynx especially, in which the diagnosis probably was made and the attending laryngologist or the family physician persisted in treating the patient without ever attempting to do anything radical or to cure the patient. In most of the cases the diagnosis was incorrect.

Dr. Crile stated that one of the early symptoms of carcinoma of the larynx is the change in the voice, the hoarseness, and so many cases are being treated by the family physician without ever consulting one who can look into the larynx and see if there is anything materially wrong or not.

The statements which I am going to make are based on an experience of about twenty-five years by Dr. Joseph Beck and myself, who have been associated for a long time, both in private and hospital practice. In private practice we get the cases much earlier than some of the cases of which Dr. Barret spoke. The ones we see in the public institutions are those cases which are practically gone before we see them.

If there is any point that I want to make, it is simply this: to stress what Dr. Barrett and Dr. Crile have said; that is, that the earlier the recognition, the better the results and the more cures. We can cure carcinoma if we get it early, but when it comes late, it is absolutely impossible to cure it. I have never seen a case, with probably one exception, of carcinoma of the larynx where there was metastases of the neck and the patient recovered health and remained well.

I will show you one or two cases in which the larynx, from local treatment of radium and X-ray, apparently returned to normal so that inspection showed it to be perfectly normal. Yet the patients died from metastases of the glands of the neck.

In the classification of malignancy, we deal with two types. Of course, the largest number of cases are carcinoma, the others sarcoma. The other speakers have not said

anything about sarcoma; probably we see it proportionately oftener in our field than they see it in the other fields. Also in speaking of malignancy, we have malignant conditions of syphilis of the nose, tuberculosis, also cholesteatoma of the ear which by progression into the intracranial structures becomes malignant and destroys the life of the patient. But I think for a general body such as this is today, you would be more interested in the sarcomas and carcinomas.

I am going to leave the histopathology of carcinoma and sarcoma, although it interests us from the clinical standpoint. When we find in these growths around the head and neck, that there is not a uniformity of the cells, whether spindle, round or fibrous type of sarcoma, or whether any one of the types of carcinoma, we find the prognosis of the treatment better when there is one uniform type. In other words, if we have a spindle cell sarcoma, it gives a much better prognosis than a spindle and round cell combined. That has been our clinical experience.

As I stated before, in dealing with malignancies of the head and neck, the sarcomas have a predilection for the nose and for the sinuses, while the carcinomas have a predilection for the lips, the tongue and especially the larynx.

In regard to the treatment of these two types, the diagnosis is very essential, and sometimes in the beginning, it is very difficult to make our diagnosis, but after it is made, the treatment and the prognosis are essentially different.

After we have made our diagnosis clinically, we depend upon our pathologist for the verification of the diagnosis. That, of course, has a great many features connected with it. The pathologist must get the specimen to be examined.

Right here I wish to be very emphatic about the so-called biopsies of the head and neck, especially about the nose and throat. It is very essential in making a biopsy or obtaining a piece for microscopic section, that you go deep enough into the growth. We have just recently had one case from this part of the country, of a suspected carcinoma of the larynx in which we did a biopsy and the microscopic section returned with a report that it was non-malignant. We then decided to operate on the man, not by a laryngectomy, which was the proper thing to do if it were carcinoma, but by a laryngofissure, removing it and closing it up. After we opened up the larynx and removed the entire growth, we found it to be a squamous cell carcinoma. Immediately upon getting our report (and clinically it was verified after we opened the larynx), we did a laryngectomy. This was almost a year ago and the patient is in good condition.

After we have had our clinical diagnosis and our pathological one, what are we going to tell the patient? That is a very important thing from a practical standpoint. I am speaking especially of carcinoma of the larynx. It is comparatively easy in practically all other parts of the body, but if you tell a man that he is going to have an operation which will render him unable to speak except by artificial appliances, which incidentally are getting better and better every day, it is a great shock to him and the mental condition makes him a bad risk for the operation.

We had one man who was brought in with carcinoma of the larynx. The man was not informed of what was going to be done. But he was told that he was to have an operation and his son was told about the operation. We did a laryngectomy and within a week the man was dead, I think, simply from mental depression. After he found that he could not talk, that his larynx was gone, he became very morose and depressed, refusing to eat, or rather, be fed, and as I stated before. within a week he was dead. Determining what to tell a patient is always a serious question. Shall we tell the patient what he has? The patient usually asks you if it is a cancer. These problems are, of course, individual ones, but we have found, as a rule, that the ultimate prognostic outcome is very much better if we refuse to tell the patient anything about his condition, making light of it as much as is possible. On the other hand, you must tell him something to get his consent to the operation. Again that is a matter of individual judgment and dealing with individual patients, but as a rule, in our experience, the majority of them get along much better if they are not told what they have until after the operation is done.

Sarcoma usually begins in the antrim or in the interior of the nose as a round body or swelling and progresses very rapidly outward and upward, bulging the eye to one side or the other, depending upon whether it is a single or bilateral. As this advances, it gives a characteristic frog face which I shall show you in one of the slides. Sarcomas yield to X-ray and radium. We have had any number of cures from X-ray and radium in sarcomas. Where sarcomas have been diagnosed properly, you find a great many cures, not in all cases, but the percentage is very high. When a patient comes in with a sarcoma about the face, unless it is already

intracranially advanced you can give a fair prognosis. In carcinoma I have never seen but one case that was benefited by radium and X-ray. That was the first case we ever treated. The patient recovered from the carcinoma but died from the effects of the radium. Nothing short of wide, extensive surgery will cure carcinoma.

The first symptom is hoarseness. When a man of the cancerous age presents himself with hoarseness, always be on the lookout for a malignancy. One of our leading laryngologists in Chicago made this statement, "Every case of hoarseness or tumor of the larynx which does not yield to potassium iodide is potentially a carcinoma and should be removed early." I did not believe this at first, but later did. As Dr. Crile stated, it should be thoroughly removed. We have seen cases and have had cases come to us in which a papilloma or fibroma was pinched off and recurred very rapidly, later becoming malignant.

Before we did laryngectomies, we did laryngofissures and we have used every kind of cautery, X-ray, radium, surgical diathermy, Percy cautery, and the whole category, and I have never seen one case of cure that remained cured except when we did radical surgery; by that I mean laryngofissure or laryngectomy. Sarcomas, however, yield sometimes to X-ray and radium.

As a matter of precaution, we very often give a dose of radium or X-ray before operation and sometimes we follow that by a slight dose afterwards, but depend entirely upon our surgery. When cases come to us now, unless they are the so-called inoperable cases, we refuse to do anything with them and would rather send them back unless they submit to a surgical operation, because as Dr. Crile knows, the best prognosis of any carcinoma is that of carcinoma of the larynx. We have cases that have remained cured for years. I shall show you one case of cure of seventeen years; the man just recently died at the age of seventy-four from an intercurrent disease.

(Presentation of slides).

These are the three types of carcinoma that I want to show you. This type, carcinoma of the cords, will yield to a laryngotomy, that is a splitting open of the larynx, a laryngo-fissure. We try to preserve the voice as much as possible.

Here is the type in which nothing short of a laryngectomy can be done. It is too extensive to do a laryngo-fissure or laryngotomy.

This (3rd case) has extended beyond the outside. These cases always have metastases. You could treat these with radium and X-ray because they are inoperable. That does prevent some pain, extends their lives, and makes them much easier, but there is never a cure.

Case 1—Here is a case in which a tracheotomy and laryngofissure was done. You see the vast, extensive metastases in the neck. This is what was removed from the neck. This man was treated by diathermy, X-ray, radium, and with recurrence he passed away.

Cace 2—Here was a case of laryngotomy that was supposed to have been previously cured with radium. I cannot go into details, but he was apparently cured and sent back home to Vancouver, B. C. Six months later, he went to Boston where he was seen by a laryngologist who sent us a letter telling us how wonderfully the radium had cured this man. Six months afterwards he had a recurrence with metastases in the neck above the larynx. We did a laryngectomy and he lived for a year and a half after, dying from a recurrent carcinoma of the neck.

Case 3—Here is a man on whom we operated seventeen years ago by laryngotomy. He died just the other day. Here is the specimen. It was localized on the cords.

Case 4—Here is a case in which a laryngectomy was done by radium. This was one of the early cases. The man absolutely refused an operation. We used intensive amounts of radium on him. We first did a laryngo-fissure, slit open the larynx, buried the radium, kept it wide open and the entire larynx sloughed out, as if a laryngectomy had been done. His voice was gone. He had a tracheotomy tube. While the region of his neck was apparently cured, he had a mediastinal carcinoma that extended downward and he had a horrible death by choking.

Case 5—Here is a man who recovered completely from his carcinoma of the larynx. I used radium intra-laryngeally by needles. In four or five months this man was completely cured of his carcinoma but a few weeks afterwards he had a recurrence on his neck and died a very horrible death in about six weeks after we applied radium and X-ray to the metastasis.

Here is the first case we cured of a carcinoma wherein the patient died from the treatment.

Case 6—This is a very interesting case. This man had a laryngo-fissure done in a large clinic in the northwest. He had a recurrence and returned to the clinic. He was told to go home and use a little radium. He had a carcinoma extending to the outside. We did a laryngectomy and he recovered completely, gained eighty pounds and is in perfect health, carrying on his usual duties.

Case 7—Here is one of our early cases of epithelioma of the larynx. This was done by laryngofissure twelve or fifteen years ago and the man is still well and without recurrence.

Case 8—I told you that every case suspected that does not yield to K. I. or anti-luetic treatment is malignant. This man had a typical carcinoma of the larynx clinically. I removed two specimens from his larynx by suspension laryngoscopy. Report of both was returned "non-malignant, granulation tissue." I did not believe them. I was going to do a laryngo-fissure, and I exposed his larynx and found a large tumor. I incised it and found it full of pus. The man had a perichondritis with suppuration. He recovered and as far as I know he is well.

Case 9—Here is a man who had a carcinoma of the larynx six years ago. We did a laryngofissure and removed the growth. He was sixty-

eight years old at that time and did not want a laryngectomy done. We removed a left sided typical squamous cell carcinoma. I saw him about three weeks ago and he is perfectly well.

Case 10—Here is another case very much like the one just cited. We did a laryngo-fissure. The growths in both cases were small and both of them came to us early for diagnosis.

Case 11—Here was a man from Chicago, a printer by trade, who had a hoarseness for six months. He consulted one of our laryngologists and for three months this man was treated by the laryngologist who, during all this time, did not once look down into his larynx. The man told me that he had treated him locally for three months. He consulted another laryngologist who referred him to me. He had a very extensive carcinoma in which I did a window resection. I did not even slit open the larynx, but took out the thyroid cartilage and removed the carcinoma. In six months he had a recurrence and we then did a laryngectomy. He had a great deal of trouble with the esophageal stricture which formed and while apparently recovering, passed away very suddenly from what cause, I do not know.

I want to leave this impresion with you: An early diagnosis and radical surgery are the proper procedures. The so-called palliative treatments including cautery, X-ray, radium, surgical diathermy, etc., have never, in our experience of twenty-five years, cured a case. Nothing short of extensive surgery, followed by radium and X-ray if you wish, gives good results.

RADIATION THERAPY IN CANCER

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In this communication we will attempt to treat the subject of radiotherapy from the standpoint of the general clinician rather than from the technical point of view of the radiotherapeutist. It is obviously impossible in a paper of this kind to do more than discuss briefly the fundamentals. This is written with the hope that with a better understanding of the uses and limitations of radiotherapy, the general clinician will be able to use it with the greatest benefit to the patient.

The term radiation therapy will be restricted to the therapeutic uses of radium and roentgen rays as these are so closely allied and so complimentary to each other that the modern cancer therapeutist can ill afford to forego the use of one for the other.

X-rays are emitted from a focal point on the target of the tube and emerge as a cone of rays of heterogeneous wave length. The penetration of X-rays is due to the wave length, which is dependent on the voltage passed through the tube, hence, in the so-called "Deep Therapy" one uses the highest voltage which the machine and tube will carry economically. At the present time this is 200,000 volts.

Radium rays are emitted from the element itself and are shot out in all directions from this point as heterogeneous rays similar in their biological effects to X-rays. A few of the gamma rays are more penetrating than any X-rays yet produced. These penetrating gamma rays are, however, less than 1 per cent of the total so that in order to utilize only these highly penetrating rays the length of time required for the treatment would be so great as to preclude the economical use of radium for deep therapy in most cases.

The object of radiotherapy in deep-seated cancer is to deliver a predetermined dose of as nearly as possible homogeneous rays to the tumor mass. The homogeneity of the rays is accomplished by utilizing a beam of X-rays from a high voltage X-ray machine, or the rays from radium, projected through appropriate metallic filters, which eliminate the softer less penetrating rays. The intensity of the radiation throughout the tissues is also made more nearly uniform by increasing the distance between the source of the rays and the surface of the skin. The distance is an important factor as the intensity of the rays varies inversely as the square of the distance. Thus doubling the distance will divide the effect by four. Increasing the distance, therefore, necessitates a much greater length of time to give the desired intensity but the tremendous output of the new water-cooled tube has solved this serious problem.

The standard of dosage employed in the past has been the quantity of radiation required to produce an erythema of the skin. This standard is in some ways unsatisfactory because there are varying degrees of erythema; what one calls an erythema may be far beyond the mild erythema standard as used by another. Seitz and Wintz have described their erythema dose as one which causes a slight reddening on the day following the treatment and which increases in intensity until the eighth day. There is a slight bronzing at three weeks and a deep brown discoloration at seven weeks. Kroenig and Friedrich produce a full degree erythema almost to vesiculation. Many prefer to use a milder degree of erythema as a basis for their biological unit so that no permanent damage will be done to the skin, the presence of which would preclude further radiation over this area. The method widely used at the present time is to have the output of the individual machine and tube carefully calibrated by a competent physicist who then makes up depth dosage charts by

which one can measure the percentage of radiation reaching the tissues at any desired depth, figuring the skin as receiving 100 per cent of an erythema dose. By reconstructing cross-sections of the body from measurements made upon the patient and drawing in the normal organs and malignant tissue one can usually deliver accurately measured radiation to deep-seated cancer. This is accomplished by using various portals of entry with the beam of rays directed always toward the tumor tissue. These dosage charts are important also in guarding against overdosage on normal organs.

In choosing between radium and X-rays as the therapeutic agent one should consider briefly the action of each: Radium for economic reasons is usually applied in contact with or at most several centimeters away from the growth so that its action is mostly local with a rapid diminution of intensity in the depths of the tumor. This is of advantage in many superficial growths and those occurring near vital organs. X-rays are usually applied at distances of from 20 to 80 cm. and therefore by the law of dispersion, or inverse square law, a much more uniform degree of radiation is received. Cases may be divided into several groups according to the location and accessibility of the growth.

(1) Where an intense local action only is desired, radium is the agent of choice.

(2) Where a uniform deep radiation is desired, deep X-ray therapy should be employed.

(3) For cancer readily accessible to radiation from the cavities of the body and also from the exterior, such as cancer of the uterus, rectum, mouth, throat, etc., radium should be employed locally and X-ray therapy externally to produce uniform radiation of the tumor and surrounding tissues.

UNTOWARD EFFECTS

Since the advent of deep therapy, using high voltage and copper filtration of the rays, an increasing number of reports of untoward effects have been appearing in the literature. The first lung changes are reported by Groover, Christie and Merritt in 1921 and later in 1923[1]. It is now known that excessive dosage over large areas of the chest is followed by infiltration with edema and congestion of the lung, which may later show evidence of fibrosis and even atelectasis. This infiltration also lessens the resistance of the tissues making it unsafe to repeat the radiation over these areas.

A number of cases have been reported in which abdominal injuries have occurred following large doses of deep therapy. The bowel is rather sensitive to radiation and in cases of excessive dosage to experimental animals the bowel shows destruction of the lymphoid tissue with ulceration of Peyer's patches. There is also some destruction of the mucosa and the lumen contains blood and mucous. In the chronic stage the bowel is contracted with thickened fibrotic walls.

Case and Warthin[2] have recently reported three cases of degenerative changes in the liver after irradiation over this area. This injury was shown by well marked changes in the epithelium of the medium and smaller sized bile ducts. There was also some evidence of injury to the liver cells at the periphery of the lobules although the liver cells appear to be more radioresistant than the bile duct epithelium.

Sometimes in treating the cervical region there occurs a temporary pharyngitis or laryngitis which usually disappears within a few weeks. Occasionally there is also a temporary aphonia associated with these. In pelvic cases, vaginitis, proctitis, and cystitis are a frequent accompaniment of heavy irradiation.

The recent tendency has been toward a reduction in dosage so as to avoid these undesirable results. One must always regulate the dosage of radiation to the tumor to such an extent as to preserve the integrity of the normal organs. Many types of tumors are so radioresistant as to require dosage very near the threshold of tolerance to the normal structures so that it is an absolute necessity to have the output of the machine calibrated so that the depth dosage may be accurately measured.

EFFECT ON NORMAL STRUCTURES

The following table by Hirsch[3] illustrates the relative sensitivity of the normal tissues of the body to radiation of medium hardness. (The sensitivity coefficients of normal tissues are given as arbitrary values assuming that of the skin to be 1).

Leucocytes:
- 2.5 Lymphocytes.
- 2.4 Polynuclears.

Germinal Cells:
- 2.3 Ovarian (Mature Graafian Follicle).
- 2.2 Testicular (Spermatozoa).

Blood Forming Organs:
- 2.1 Spleen.
- 2.0 Lymphatic tissue.
- 1.9 Bone marrow.

Endocrines:
- 1.8 Thymus.
- 1.7 Thyroid.
- 1.6 Adrenal Hypophysis.

Blood Vessels:
- 1.5 Intima.

Dermal Structures:
- 1.4 Hair Papillae.
- 1.3 Sweat glands.
- 1.2 Sebaceous glands.
- 1.1 Mucous membrane.
- 1.0 Skin.
- .9 Serous membranes.

Viscera:
.8 Intestine.
.7 Liver.
Pancreas.
.6 Uterus.
Kidney.
Connective Tissue:
.5 Fibrous tissue (vascular).
.4 Muscle.
Fibro cartilage.
.3 Bone.
.2 Nerve tissue.
.1 Fat.

EFFECT ON CANCER TISSUE

Malignant tissues vary in their sensitivity to radiation but in practically all types of tumor tissue the cells are more radiosensitive than are the normal cells of the body. If this were not the case no cancer could ever be destroyed without irreparable damage to that part of the body acting as the host. The reasons for this are described by Loeb[4] as follows: (1) Cancer cells are dividing rapidly. (2) They are dividing rapidly under abnormal conditions, as demonstrated by irregularities in the cell divisions and irregularity in arrangement and character of cells. (3) The rapid cell multiplication prevents or retards the production of protective structures in the tumor.

It would appear that it is the nucleus of the cell that is primarily injured by radiation therapy although the general opinion is not altogether settled in regard to this point. It is known, for example, that mitotic nuclei are extremely sensitive and that cells in this stage are rapidly destroyed. The microscopic changes indicate a very definite involvement of the cytoplasm also, so that in all probability there is some general effect on the cell as a whole but with a more selective action on the nucleus. Ewing[5] describes the microscopical changes as follows. "They consist of swelling, hyperchromatism, vacuolar degeneration and solution or fragmentation of nuclei, hydropic swelling, vacuolation and solution of the cytoplasm." The changes in the surrounding stroma are described as hyperemia, with serous exudation and leucocytic infiltration together with the growth of new capillaries which may play a part in the removal of tumor cells. The whole process seems to be one of autolytic degeneration. Ewing further states that, "the series of changes occurring under these and in more severe forms of radium reaction, taken as a whole, are not duplicated under any other conditions and indicate a specific selective action of radium upon tumor cells."

There is also the indirect effect on the cancer cell due to the reaction of the surrounding tissues as shown by Murphy[6]. He irradiated one groin of a mouse and then inoculated this area intracutaneously with a highly malignant tumor with almost complete absence of growth in these areas while the control in the other groin grew with usual vigor. In another experiment similar to the first, except that the tumor was inoculated under instead of into the skin, no difference in the rate of growth could be seen on either side making it appear that the treatment conferred a local immunity to the skin only. Microscopic examination showed in the radiated areas a marked local cellular reaction confined to the skin and absent in the subcutaneous tissues. Another point was that the cancer cells in the radiated areas showed a series of degenerative changes identical with those seen following direct radiotherapy and which is generally interpreted as proof of the direct action of the roentgen ray on the cells.

Thus it can be seen that there are two distinct schools of workers. One asserting that the action is a direct one on the cell itself, and the other attempting to show that the action is an indirect one acting on the surrounding tissues and stimulating these to destroy the cancer by creating an unsuitable environment for life and growth.

Much has been said of the carcinoma dose and sarcoma dose, especially by the German school. Time has demonstrated, however, that the sensitiveness of the various kinds of carcinoma and sarcoma varies greatly. Even the same type of tumor may vary greatly in different individuals. Loeb[7] has grouped these tumors in a tentative way according to their radiosensitiveness. (1) Tumors composed of actively dividing cells which are devoid of paraplastic structures are most sensitive to radiation. Thus, lymphosarcoma is very radiosensitive as are also lymphocytes. (2) Tumors composed of cells which are essentially protoplasmic material with embedded nuclei are also sensitive, even if the cells are not rapidly multiplying, as for example basal cell carcinoma. (3) Tumors tending to produce paraplastic structures are more resistant, even though they may show a certain degree of proliferative activity, e. g. squamous cell carcinoma and fibrosarcoma. (4) Resting tumors with much paraplastic substances may be very resistant e. g. fibromata.

It is possible, however, that other factors may enter into the matter of resistance to radiation, such as individual resistance of the cells and decreased immunity by the host against the tumor as for example lymphocytic infiltration the presence of which would seem to be an important factor.

From experimental and clinical evidence it has been shown that it is impossible to kill every carcinoma cell in the field by di-

rect radiation to the cell. In cases where clinical cures have existed for many years biopsy has shown carcinoma cells, apparently viable, embedded in fibrous tissue. Therefore it would appear to be of prime importance to conserve in every way the general resistance of the body. What we endeavor to do by radiation, therefore, is to use such a dosage as to lessen the vitality of the malignant cells and at the same time stimulate the indirect or connective tissue reaction. If too great dosage is used not only are the local tissues devitalized but the toxins also break down the general resistance of the patient. If too small dosage is employed the cancer cells are not only unaffected but the resistance of the organism is not stimulated to a degree where it can cope with the malignant cells.

CONSTITUTIONAL EFFECT OF RADIATION

Following large doses of deep X-ray therapy many patients show evidence of a marked constitutional reaction manifested by general malaise, nausea, vomiting, salivation and sometimes by chills and fever. In a series of a 150 cases 60 per cent showed some evidence of this reaction. This usually begins within an hour or two after the treatment and lasts from several hours to several days. This acute reaction is not dangerous to life but is so disagreeable in some cases as to unduly prolong the treatment.

Many theories have been put forth as to the possible cause of this continuous reaction. One of the most popular of these has attributed the cause to inhalation of ozone or ozone in combination with other noxious gases. That this can be a factor in many cases is undoubted, but in our installation we have completely eliminated this factor with no appreciable difference resulting. Possibly the next most important theory was that acidosis was the cause of this reaction. On this theory was found the popular alkaline treatment by sodium bicarbonate.

Our clinic[8] has recently been studying these acute reactions experimentally and clinically and has reached the conclusions that the immediate action of the rays is on the nucleus of the cell and that the toxic decomposition products act as strong bases causing an alkalosis and acting like monovalent salts as sodium bicarbonate and sodium citrate on all the cells of the body. We have found a distinct alkalosis not only as represented by the pH of the blood but also in the tissues themselves as shown by the use of indicators within the tissues. We have also found no elevation of the basal metabolism but rather a tendency toward the lowering of this.

In the treatment of this reaction we have suggested the use of calcium for its protective action in decreasing the permeability of the cell membrane. We have also found that morphine used prophylactically prevented these reactions in many cases and have suggested its use in a few of the more severe cases.

There is also a very definite effect produced on the blood cells. This is most marked in the case of the lymphocytes and the effect can be seen within an hour of the beginning of irradiation. These do not fully recover for several weeks. The polymorphonuclears are also affected but somewhat more slowly. This, together with the rapid lymphocytic destruction causes an apparent hyperpolynucleosis which is seen a few hours after irradiation. This is followed by a leucopenia which may persist from six to eight weeks. The erythrocytes are not affected in the same degree and seem to show considerable resistance to radiation. The structures producing red blood cells are affected, but as these cells remain in the circulation for thirty days and as the myeloid tissues begin to regenerate in a few days the red cells are not so much affected. The blood platelets appear to be slightly decreased.

GENERAL CONSIDERATIONS

In selecting cases for radiotherapy it has been the custom in the past to choose those cases which were beyond any hope of cure or the few who refused surgery, and it is owing to the remarkable palliative results obtained in many of these hopeless cases that radiotherapy has attained the position it holds today.

It is still a mooted question as to whether one should use radiotherapy preoperatively, postoperatively, or alone. We feel that this question must be decided not only for every type of cancer but also for every case. It is obvious, however, that cases showing evidence of extensive matastases can have no hope of a surgical cure and that radiotherapy offers the only agency whereby palliation can be achieved. In cases where the growth is localized, with no clinical evidence of metastases, a consultation of a surgeon and radiotherapeutist should be carried out and the future course of treatment planned after considering all angles of the case.

We believe that in those cases where it is decided to use radiotherapy in combination with surgery a treatment should be given preoperatively over the growth, for the direct action on the cancer cells, and over the regional gland areas for the indirect action on these tissues in stimulating the

protective reaction to combat any cells that may metastasize. If this dosage is not excessive the patient may then be operated within the next four days without danger of delay in healing of the wound. Post-operative radiotherapy should then be carried out after an appropriate interval. If recurrence occurs following this, one can hope for only a palliative result in most cases. In certain types of cases which are readily accessible from the exterior, such as carcinoma of the cervix, it is advisable to use radium as the pre-operative therapeutic agent and then later cover the gland bearing area with deep roentgenotherapy.

In choosing patients for radiotherapy one should bear in mind certain clinical considerations much the same as in choosing cases for operation. In the first place very cachetic patients are a poor risk and in many cases large doses of deep therapy may actually shorten life. If a decision is made to use radiotherapy, blood transfusion should be resorted to and the treatment should be spread over as many days as possible. These cases, however, seldom show results commensurate with the discomforts involved. Patients with persistent pain in cancerous areas as a rule do badly and too much hope of ultimate cure should not be entertained. Radiotherapy, however, will sometimes relieve pain if due to metastases, such as pelvic metastases from prostatic carcinoma. Where infection is a complicating factor cancer should be treated very cautiously, especially in the matter of embedding radium.

In the preparation of a patient for deep roentgenotherapy one should regard it with the same seriousness as if the patient were to undergo a major operation. Treatment should not be undertaken without a thorough examination, including films of the chest for metastases. The blood should be studied and if necessary hemotherapy should be instituted. The excretory functions should be kept active and a bland diet prescribed.

Following the course of radiotherapy the patient should be treated symptomatically. He should be instructed to avoid applying any irritants to the skin of the irradiated area. If erythema develops this should be treated with a zinc oxide lotion. The bowels should be kept open and above all rest should be insisted upon as the body is encumbered not only with the toxic products from the broken down cells, but also with blood containing a lowered cellular content.

Lymphosarcoma—It is in this class of tumors that radiation therapy produces some of its best results. These growths are being recognized as coming exclusively under the domain of the radiotherapeutist as the local lesions are in mose instances manifestations of a generalized disease in which surgery can at best remove only a portion of the pathology present. In addition these neoplasms are composed of lymphocytic cells which are the most radiosensitive of all the cells of the body so that many of these cases show excellent primary results. In cases of early localized lesions a number have been reported in which there has been no recurrence but the great majority later show recurrences in other parts of the body. These recurrent cases usually respond to therapy, however, and may live for a number of years. Striking results are often obtained in cases of mediastinal lesions which frequently regress to normal, at least temporarily, with a corresponding improvement in the symptoms and general condition of the patient.

Cancer of the Skin—Basal cell epitheliomata are very susceptible to radiation and because a local caustic effect is desired radium is usually the agent of choice. These tumors seldom, if ever, metastasize so that treatment of the regional lymph bearing areas is not necessary. Squamous cell epitheliomata present an entirely different problem owing to the frequency with which they metastasize. If these are treated with radium the dosage should be of sufficient strength to destroy the growth in the shortest possible time. This treatment should be supplemented by X-ray therapy over the regional areas where metastasis is most likely to occur. If the epithelioma is removed surgically it is advisable to radiate thoroughly this area and the surrounding areas post-operatively, and if possible pre-operatively.

Radiation therapy in skin cancer gives a very good cosmetic appearance, in most cases only a small scar resulting. In addition the patient is able to proceed with his usual duties with only a slight inconvenience. If bone or cartilage is involved it is well to have this removed by surgery, especially by one of the electrothermic methods.

Epitheliomata of the tongue and buccal mucosa do not give as favorable a prognosis but when the surgical results are considered we believe it justifiable to employ radium in many of these cases. If surgery is employed, pre-operative and post-operative radiation should be carried out.

Cancer of the Alimentary Tract—In cancer of the esophagus, radiation is the method of choice although these cases are seldom cured. Palliation is obtained in a fair percentage of these sufferers, especially noticeable in improvement of deglutition. Radium

is employed as a local agent within the esophagus and X-rays externally, crossfiring through the chest.

Cancer of the stomach should be operated if the X-ray examination shows it to be a resectable growth or one near the borderline. If the growth is resected X-ray therapy should be given over this area. If metastasis has already taken place it will be found useless to use radiotherapy in most cases, as the surrounding organs are of such radiosensitivity that they do not tolerate well the amount of radiation which is necessary to destroy the cancer. We advise against treating far advanced cases, especially those showing evidence of obstruction. We believe that heavy radiation in these cases may hasten death.

Cancer of the colon has a considerable percentage of surgical cures so that whenever possible we prefer complete excision of the tumor followed by deep X-ray therapy. In cancer of the rectum we have a neoplasm accessible to radium therapy from the interior. For sometime we have been treating operable growths in this area by a preliminary colostomy followed by thorough local radium treatment. Some weeks later a surgical resection is done and this is in turn followed by deep X-ray therapy covering the entire pelvis by the crossfire method. Our results by this combined method of treatment have so far seemed better than previous single methods.

Cancer of the Breast—The surgical statistics in primary operable cancer of the breast indicate that these cases should be operated as soon as possible. The type of operation in this group cannot be discussed in this paper, but we feel that in those cases presenting metastases to the regional lymphatics, especially to the supraclavicular region, that the interests of the patient are promoted by doing a local removal of the breast and depending on radiation therapy to destroy the metastases. In all cases of cancer of the breast a careful roentgenographic examination of the chest should be made to determine the presence of metastases. This alone will often decide the type of therapy.

In the definitely surgical group we prefer to give one pre-operative treatment to the breast and surrounding lymphatic chains. The purpose of this is twofold; to obliterate, as far as possible, the lymphatic channels thus preventing direct extension through these, and to affect directly the cancer cells of the primary tumor and possible metastatic extensions. This will not delay the operation appreciably if the dosage has not been excessive. As soon as the skin will tolerate it another course of deep X-ray therapy should be given over the lymphatic drainage areas. Examination of the specimen at operation, in cases treated by this technic, will reveal definite degenerative changes in the malignant cells and a partial replacement of the cells by fibrous tissue.

Cancer of the Pelvic Organs—In cancer of the cervix, radiation therapy has been making rapid progress. A large percentage of these cases are already beyond the hope of surgical cure when the patient is first seen and in these inoperable cases an astonishing amount of alleviation can be accomplished by irradiation. In these advanced cases we advise local radium therapy to the cervix and deep X-ray therapy covering the entire pelvis, crossfiring from four portals of entry and carefully measuring the depth dosage by means of charts as mentioned previously. It is our aim here to arrest the bleeding and discharge, to inhibit the extension of the tumor and destroy as much as possible of the cancer tissue, and to promote the formation of fibrous tissue with resultant occlusion of the blood vessels. This will tend to isolate the remaining malignant cells and give the patient the greatest prolongation of life and well being.

In the definitely operable cases there is not a crystallization of opinion regarding the best method of treatment. Some surgeons prefer surgery only; others are using radium only; and still others a combination of radium therapy and surgery. Our own experience has led us to recommend local radium treatment to the tumor in an attempt to destroy as much of the neoplastic tissue as possible and to follow this up in approximately one month by hysterectomy. As soon after operation as the patient's condition will permit she is given deep X-ray therapy through the pelvis and this is usually repeated in about two months.

Prostatic cancer, because of the difficulty of early diagnosis and the frequency with which early metastasis takes place, does not give a high percentage of cures by any method. If radiation therapy is employed radium needles, containing either the element or emanation, should be implanted directly into the prostate covering the involved area. Additional local radium therapy may be given through the rectum and urethra although the dose must necessarily be small in order not to injure the mucosa of these structures. Deep X-ray therapy should be employed through the pelvis to supplement the local action of radium. In those cases with metastases to the pelvis and spine deep X-ray therapy will often do much

toward alleviating the severe pain incident to these metastases.

Cancer of the bladder should be treated by direct implantation of radium into the base of the tumor and surrounding structures. This should be done preferably through a cystotomy opening and should be supplemented by deep X-ray therapy covering the entire pelvis.

In the aforegoing paragraphs we have attempted to indicate briefly some of our own and others' experience in the treatment of a few of the commoner malignant lesions. We have necessarily had to be didactic in most instances without going into details concerning the underlying principles involved. Radiation therapy has largely passed the experimental stage and the results of its action on the various normal and pathological tissues are fairly accurately known. The success displayed by radiation therapy in alleviation of hopeless cases has gradually brought some of the early cases of cancer for treatment. The results in these cases now being reported from the various clinics bids fair to establish this as the accepted form of treatment in certain conditions and as a major help to surgery in most other malignant lesions. The fact that this is bloodless and has practically no resultant death rate has done much toward making the popular mind receptive to this form of treatment and will undoubtedly cause more people to seek aid earlier in the course of the disease. In this one thing it cannot help but be a potent aid in the lowering of the death rate of cancer.

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POST-OPERATIVE PULMONARY COMPLICATIONS—A STUDY OF A SERIES OF CASES

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The study of post-operative pulmonary complications presents a great deal of difficulty. To arrive at conclusions of any definite value, it is necessary to go through hospital records carefully; records compiled by a great many different men, whose ideas of pneumonia, for example, differ. A temperature elevation for two or three days accompanied by a productive cough, rapid pulse and respiration with, perhaps a slight dullness over a lung area, is considered bronchitis by some men, whereas others would call it an early pneumonia. Also, only a very few of the more minor ailments like bronchitis or coryza are ever mentioned in post-operative notes. Such obstacles to a complete analysis of the subject were encountered in the preparation of this paper.

A particularly large number of pulmonary complications during the winter of 1924-1925 prompted me to attempt to find their cause, and, if possible, the remedy. Accordingly, 2,728 operative cases at the Highland Park General Hospital since January, 1923, were reviewed. In order to overcome the obstacles above mentioned, 328 of these cases, operated by Dr. B. Friedlander and myself during this period, in the same hospital and under precisely the same conditions were critically studied. I have always attempted to check up very carefully the lung condition of the patients before and after operation, and have recorded as faithfully as possible all post-operative changes. I felt, therefore, that our results should be typical of all those in the hospital, representing a fair average for comparison.

An exhaustive review of the literature showed comparatively little on the subject in the American and English, but considerable in the German works. Cutler and Hunt[1] in 1920 have summed up the subject very completely, and only a brief resume of the outstanding points will be considered here. It is interesting to note that each succeeding student of the subject gives higher percentages of complications than his predecessor. This is due to a more careful survey of the cases rather than to a higher morbidity. Thus Schultze[2] in 1898 reports 0.38 per cent of pneumonia in 5724 anesthetics at Presbyterian Hospital, N. Y., whereas Whipple[4] observed 2.2 per cent pneumonia in the same hospital in 1913-14 and 2.6 per cent in 1915-16. Likewise Cutler and Morton[5] in 1916 observed at Massachusetts Gen-

eral Hospital only 1.86 per cent of total post operative pulmonary complications, while in 1920, they report 3.25 per cent.

All the reports indicate that post-operative pulmonary complications are not dependent on the anesthesia alone. Henle[6], for example, finds these complications as common following local as general anesthesia.

In averaging the statistics of all the writers, particularly Beckman of the Mayo Clinic, Ranzi, Armstrong, Otte, Pfannensteil, von Lichtenberg, Booth, Burnham, Laewen, Whipple, Cutler and Hunt, Kroenlein, Bibergeil, Kausch, Kuemmel, Czerny, Gebele, Henle, and Wolff, several interesting details are noted:

There is in all general surgery, under all conditions an average post-operative pulmonary morbidity of 2.12 per cent, of which group 25.2 per cent die. This means that *one in every* EJ *operative cases developes a pulmonary complication and one in every* BJJ *dies.* These figures, while startling, are consistently borne out.

Of all operated cases 1.12 per cent develop a pneumonia and 46 per cent of these die. Wipple has shown that these pneumonias are usually of the Group IV type, the organism of which Stillmann[7] has proved to be a common resident in the human mouth. This, then, shows that the organism itself is not the sole cause of the pneumonia.

In laparotomies, the incidence of post-operative complications is approximately four times that of the general surgical cases. Thus we see about 4.5 per cent morbidity in this group for pneumonia alone. This is due to several factors: first, the presence of active infection in the operative field, draining through the lymphatics to the lungs, as shown by Bibergeil[8] and Kelling[9]; second, to the hypostasis due to the rest after operation in a recumbent position, preventing free excursions of the diaphragm and resulting in diminished pulmonary movement and its concommitent congestion; third, to the formation and liberation of small thrombi from the operative field, causing embolism and infarction in the lungs; and fourth, as suggested by Armstrong[10], the effect of chilling on the exposed surfaces of the abdominal organs.

In upper abdominal operations the morbidity is 8 per cent. Sabin[11] shows the ease with which lymph channels can transfer sepsis and emboli from the epigastrium to the lungs, and Cutler and Hunt believe that thrombi occur in both veins and lymphatics in the operative field and that the greatest etiological factor in pneumonia is the transmission of such emboli to the lungs. Of course, the frank cases of pulmonary embolism are seen occasionally and recognized promptly, as they are almost always fatal. Ranzi[12], Kelly and Wilson have agreed that these cases are due to sepsis and vascular trauma. The condition occurs about once in every 600 cases.

Pleurisy, according to Burnham[14], occurs about once in 200 cases, and is rarely fatal, whereas empyema is very rare (about 0.05 per cent) and is almost always fatal. All the empyemas in this series followed operations for either local or general peritonitis. This shows again the great role that sepsis plays in the etiology of post-operative pulmonary conditions.

The term "ether pneumonia" is, therefore, a misnomer. Of course, carelessly administered anesthetics, where the patient is drowned in ether, or is so lightly anesthetized that he vomits and aspirates the fluid, should not be considered in any accurate study of the subject.

Friedlander[15] has shown by means of the Sedimentation Test that the anesthetic itself causes no definite inflammatory change in the lungs, and agrees with other observers, that sepsis, embolism, operative trauma, and pre-existing respiratory infection are the main causes for post-operative pulmonary complications.

We have found in our studies that the winter months are particularly rich in these complications, and more especially the season of the year when the influenza epidemics are prevalent. I believe that at such times everyone carries with him the latent infective organism which is stimulated by the other factors mentioned, and even by the anesthetic itself or the shock of the operation to activity, causing post-operative coryza, bronchitis and pneumonia.

Our material covers 2,400 general surgical cases operated by other surgeons, and 328 of our own. Nose and throat cases were excluded, because, in the vast majority of instances, their residence in the hospital was too short for the development of pulmonary complications. Such conditions, if they do occur, are found at home and not recorded in the hospital records. 1842 of such cases were in the group, with only 3 recorded complications, 2 acute bronchitis and one broncho-pneumonia. This percentage is, of course, far out of proportion to the actual morbidity.

Obstetrical cases were also omitted from consideration because of the irregularity in the anesthetics, and other differences from surgical cases. Of approximately 1,500 cases delivered, 8 complications are recorded: 2 lobar pneumonias with 1 death, 2 broncho-

pneumonias with no deaths, 2 acute bronchitis with no deaths, and 2 pulmonary embolism with 2 deaths. There is no avaliable literature to compare these figures with, but the total percentage, 0.5 per cent, seems rather low.

In the 2,400 cases, then, only 20 complications are recorded in the diagnosis cards, or 0.83 per cent morbidity as compared with Cutler and Hunt's series with a morbidity of 3.52 per cent. The total mortality was 7, or 0.29 per cent as compared with 0.7 per cent in their series. The mortality percentage of morbidity, however, was 35 per cent as contrasted with 20 per cent in that group. It is very evident, therefore, that these records must be faulty. Either that, or the mortality here in this series is entirely too great.

In order, therefore, as I said before, to check up on these records, I went carefully through 328 of our own charts for this period. Although I had recorded only 9 postoperative complications on the diagnosis cross indexes, I found by careful study that our actual morbidity was 45, or five times as great. Applying these figures to the total group of cases the morbidity percentage would be 4.15 per cent, and the mortality percent of morbidity only 14 per cent, figures which compare far more accurately with other observers averages.

Our total morbidity is 13.7 per cent, four times as high as Cutler and Hunt's series. However, I believe that I have been far more accurate than it was possible for them to be, as all the patients in my group were our own, examined by us and recorded by us daily from the time of admission until their discharge. All other series tabulated were the combined patients of various surgeons.

Two of our patients died of pulmonary complication, or the mortality was 0.61 per cent, compared to 0.75 per cent in Cutler and Hunt's series.

Of the 45 complications 19 were pneumonias, 4 lobar and 15 broncho. Both fatalities were due to lobar pneumonia. Twenty patients, or 44 per cent developed bronchitis, and the remaining 6 had pharyngitis, laryngitis, or rhinitis, the typical influenza syndrome. One of the bronchopneumonia patients also developed an empyema.

LOBAR PNEUMONIA

Four cases, or 8.8 per cent of the total group of pulmonary complications developed lobar pneumonia, as against 15, or 33 1/3 per cent broncho pneumonia. The morbidity for lobar pneumonia, therefore, is only 1.2 per cent as compared with 4.5 per cent for broncho pneumonia, showing that the organisms producing the latter disease are far more common in the respiratory tract than those of lobar pneumonia. Two, or 50 per cent of the lobar pneumonias died. One was a girl of 16, operated for bilateral ovarian cysts who later developed a general peritonitis. Her temperature rose on the second day and there was dullness in the left lung. She died the seventh day. Infection in the operative field appears to have played an active role inthis case. The other death occurred in a woman of 60, operated for procidentia uteria with excellent results. It was extremely difficult to get her out of bed or to change her position in bed. Although the operative site was well healed, she wished to stay in the hospital until she felt stronger and on the 17th day she developed a right lower lobar pneumonia, of which she died 12 days later. Hypostasis of the lungs seems to be responsible for this death.

The other two cases were milder. One, a boy of 20 was operated for acute gangrenous appendicitis. A slight cough developed the day after operation and his temperature rose to 101. The second day left lower dullness was present. On the sixth day the temperature fell by crisis and the patient was discharged well the 12th day. Here we see again the relation of an acute infection in the operative field to the development of pneumonia. The fourth patient was a woman of 35, who showed before the operation a few piping rales in both apices, and evidences of an old T. B. in both lungs. She was operated for a chronic endocervicitis and cystocele, a Sturmdorf trachelopasty and perineorrhaphy being done. The third day she commenced to cough. On the fifth day her temperature was 101, and signs of consolidation in the lower right lung were obtained. On the 7th day her temperature ranged between 102-104. T. B. bacilli were found in the sputum, and a bilateral tuberculous lobar pneumonia was present. The patient's temperature dropped slowly and on the 15th day she was discharged. At this time she had a typical T. B. temperature. She was later sent to Herman Kiefer Hospital, where she is now recovering nicely.

The etiology of these four cases, is, therefore, apparent. In two, an active septicemia was present in the operative field. One had an active tuberculous infection, and the fourth was an aged patient who persisted in remaining stationary in bed instead of moving about to permit freer lung excursion.

BRONCHO PNEUMONIA

Of the 15 cases of broncho pneumonia the etiology of five is apparent. One patient

had a ruptured ectopic and was pulseless on admission. On the fourth day her temperature rose to 103.4° and fell by lysis by the 11th day. On the 12th day another pneumonia developed on the opposite side followed by a pleural effusion and later an empyema. She was discharged on the 23rd day with a slight afternoon rise of temperature which cleared up in about three weeks. This patient's peritoneum was exposed to a large amount of blood, which, of course, acts as a foreign protein.

One patient had an acute appendicitis. She developed a mild confluent broncho pneumonia with a fall by crisis on the 4th day. Another case was admitted with a slight cough, and developed a mild pneumonia which persisted for six days. She was discharged the 8th day.

The 4th case was a rupture of the right kidney and diaphragm with fractures of the 11th and 12th ribs on that side. He developed a pneumonia in 24 hours after the emergency operation, but it cleared up entirely by the 14th day. Here, of course, we have direct injury to the thorax and lungs. The 5th case was an attempted suicide. The larynx and esophagus had been cut open and a tracheotomy was done. The patient inspired considerable mucus and developed a pneumonia in 24 hours. This cleared up in 10 days.

Three of the remaining ten patients remained in the Trendlenberg position the greater portion of the time of operation, causing diminished excursion of the diaphragm and easy access for emboli. Of the remaining seven cases five occurred during the influenza period of the year. The remaining two show no definte etiology. All ten were very mild cases, lasting 4-10 days and clearing up promptly without further complication.

BRONCHITIS

The greatest portion of the pulmonary complications belong in this group, 20, or 45 per cent developing bronchitis. This is a total morbidity of 6.1 per cent. Seven of the 20 patients had acute sepsis in the field of operation, one being a ruptured ectopic, the other six acute appendices. Two patients remained in Trendelenberg position for a prolonged period. Of the remaining 11 cases eight occurred in the influenza period, the other three having no apparent etiology.

All the cases were mild, commencing with a cough within 48 hours after operation, and slight pyrevia lasting 1 to 3 days. Rales could be heard in the chest in all cases. The differentiation between bronchitis and a mild pneumonia proved very difficult. I considered all cases where no definite consolidation could be demonstrated a bronchitis. All others, where even only a small solid area could be demonstrated were called pneumonia.

INFLUENZA

In this group I included those cases which showed the typical influenza syndrome: sore throat, a reddened pharynx, temperature elevation, slight cough, headache and backache, and occasionally laryngitis. These symptoms occurred in six patients in our series. Two showed acute infection in the operative field. One had a cold on admission. This case, as well as the three others occurred during the months when influenza is prevalent.

Of our 45 cases, 18 were males, 27 females. The average age was 30 and the majority of complications occurred in patients between 30-40, the next most frequent decade being 20-30. This shows clearly that complications of this nature are not due to senility.

SEASONAL VARIATIONS

The greatest number of pulmonary complications occurred in the months of November to March. The one exception to this is May, 1924, which was an extremely cold month with a mild influenza epidemic.

This brings us to the consideration of seasonal variations in pulmonary complications. All investigators agree that during cold weather and when respiratory infections are common generally, such as during our influenza epidemics, pulmonary complications are far more frequent than at any other time. This fact is well born out in our series. We have made it a rule to postpone operation on all cases with even a mild coryza, and, during the influenza epidemics to postpone all cases possible. All of our patients have their throats painted with argyrol before going up to the operating room. While this may not be an absolutely effective precaution, we believe it helps to at least partially sterilize the throat, and lessen the danger of infection of the lungs.

Of the 45 complications, 29 followed operations on the lower apdomen. Three of these were hernias, eight pelvic operations, and 18 other lower abdominal cases. Seven of the 45 were gall bladder, stomach or other abdominal cases, eight were vaginal or rectal alone, and one an operation on the neck. Approximately 15 per cent of our lower abdominal cases developed some complication, while 18.5 per cent of upper abdominal cases were affected. Only 9 per cent of the other cases showed complica-

tions. This concurs with the findings of other investigators, and with the embolic theory of the origin of respiratory affections, particularly pneumonia and embolism. The trauma produced in operating liberates emboli which drain through the veins and lymphatics. Those nearer the lungs have a greater opportunity of doing harm. Hence gall bladder, kidney and stomach cases cause more complications than other abdominal operations, and all laparotomies are more often followed by lung involvement than other operations.

Of the 328 cases studied, 76, or 23 per cent were acute cases; that is, they had free purulent or other foreign material in the operative field. Such cases include acute appendictis, ruptured ectopic or rupture of some viscus. And, though only 23 per cent of the cases were of this group, 31 per cent of the complications occurred among these cases. This furnishes additional corroboration for the theory that sepsis is one of the main causative factors in the production of post-operative pulmonary complications. And, when we consider that a great many of our so-called chronic cases harbor within them active infection of some sort, such as, for example, a chronic salpingitis, appendicitis, or cholecystitis, we can readily see that sepsis plays a part in almost all our operative work.

ROLE OF THE ANESTHETIC

	Total Cases	Complications	Per Ct. Morbidity
Ether	30	5	16.7
Gas Oxygen	24	4	16.7
Gas Induction and Ether	244	31	12.7
Ethylene	30	5	16.7

			Total Complications	
Total Operations	328			45
Upper Abdominal	38			7
Lower Abdominal	195			29
		Hernias	3	
		Pelvic	8	
		Others	18	
Others	98			9
		Neck	1	
		Vag. & Rect.	8	

We see from the above chart that ether gives no more complications than do the other anesthetics, although all of us are familiar with the term "ether pneumonia." Gas oxygen induction followed by ether seems to be even less productive of complications than gas oxygen alone, strange as this may seem. Yet there are no very marked differences to be found at all. All of which proves that the anesthetic itself plays only a minor role in the production of pneumonia and other respiratory complications. Of course, all these anesthetics were administered by expert anesthetists. Ether was given as carefully as it should be—not poured over the patient's face, suffocating him, as is so often done by internes and nurses. A properly given anesthetic does not produce cyanosis or vomiting during the operation. Patients do vomit afterwards, of course, but at this time the expressed fluid can be prevented from being inspired. I can readily see how the term "ether pneumonia" came into being. How often have we seen ether literally poured, and the patient struggling for breath. The mask is then removed and the patient comes partially out of the anesthesia, and vomits, inspiring a mouth full of gastric contents into the trachea and bronchi. It is really remarkable that so few of these unfortunate victims did develop pneumonia. But, if the patient is properly prepared, given a hypnotic before operation, and properly anesthetized by a trained individual with whatsoever anesthetic is desired, his chances of developing post-operative pneumonia from the anesthetic are practically nil.

At this point, let me say a word about local anesthesia. Unfortunately, our series does not include local anesthetics, as we do not do major work under local. Henle, however, reports more complications with this than with general anesthetics. These figures seem striking, but when we remember that local is seldom used in infected cases, and that under local anesthesia operations are done more slowly and gently than under general, thereby liberating fewer emboli, we can readily explain why in this country there seems to be less post-operative involvement.

Ethylene also deserves a few words in this connection. At Highland Park we commenced to employ ethylene about December, 1924. We noticed more post-operative complications since that time than in the preceding few months, and immediately laid the blame upon ethylene. We failed to consider, however, that influenza was with us, and it is partially in defense of ethylene that this paper was written. I have shown that the morbidity percentage with ethylene is no greater than with any of the other anesthetics.

In the study of post-operative pulmonary complications, we consider, therefore, as causative agents: (1) The anesthetic. (2) Sepsis. (3) Formation of emboli. (4) Age. (5) The type of operation. (6) The position of the patient on the table and afterward. We have seen that age and the anesthetic have little part in this procedure, that the main causes are sepsis in the operative field, and embolus formation. The laparotomies

and particularly the upper abdominal operations are more frequently followed by complications than other types of surgery.

There are several other factors to be considered before the subject can be closed. In order to simplify matters let us trace the path of a patient from the time he leaves his home until his operation is completed. He leaves home with a normal respiratory tract. He is taken out of a warm house into the somewhat colder outdoor air. He travels several miles in the cold and enters the hospital where the temperature is about 76°. He goes to bed, and at night, when the air is cool and the windows have been opened, his covers are thrown back to permit preparation for operation. The covers are replaced, and the following morning he is placed on a cart and carried through a draughty corridor, up in an elevator whose shaft is provided with open windows, into the operating room corridor. Here he waits for 15-30 minutes while the operating room is being prepared. In this corridor doors are continually being opened and closed, producing a dozen draughts. Finally he enters the stiflingly hot operating room, the temperature of which is seldom below 80. After the operation he is in a profuse perspiration. The process is then reversed. Back through the draughty corridor, down the elevator which is uncomfortably cold, through the windy hall and into his ward. The bed has been prepared for an hour, and has been open to the cold air coming in through the open windows (for the other patients need air). The patient is put to bed, his pulse counted, and then left to the tender mercies of a nurse who has five or six other patients to attend. She opens the blankets to permit the insertion of a Murphy drip catheter or hypodermoclysis needles, and all the while the patient is perspiring profusely from the change in temperature from 80 in the operating room to 50 in the elevator and corridors and 70 in the ward.

In several minutes the patient reacts and feeling warm, throws off several of the blankets, exposing himself once more to the cold. The patient, not having a special nurse, remains so uncovered until the nurse who is to watch him, returns from carrying a bed pan for one of the other patients in the ward and recovers him.

This is not an exaggeration as any surgeon will testify, and herein lies another great cause for pulmonary complications. Chilling, according to Mudd and Grant[16], permits bacteria already present to get a start. Overheating in our operating rooms is the rule, rather than the exception. During the war, when coal was so scarce in Germany, it was necessary to lower the temperature in the operating rooms. According to several German writers, when the temperature was 60° there was far less pneumonia than when it was 80°. Anesthesia rooms, where the patient may be placed while the operating room is being prepared, and more especially, recovery rooms where the patient is kept for several hours under ideal conditions and supervision, are absolutely essential in the management of operative cases in order to avoid the chilling which plays so great a part in the development of post-operative pulmonary conditions.

TREATMENT

Only a few remarks about the management of these cases will be mentioned. It is our custom, as I said before, to paint the throat with argyrol before each operation. If active infection in the operative field is found, ether is poured over it, to sterilize it effectively before closing. The patient, upon returning from the operating room, even before he reacts, is placed in a sitting posture by means of a back rest. This aids both in drainage and in thoracic respiration. It also, theoretically, should prevent to a great extent the drainage of emboli into the lungs through the veins and lymphatics.

Upon the first intimation of a respiratory infection, either the sore throat or rhinitis of influenza, or the cough, pulse elevation and pyrexia of bronchitis or pneumonia, we give atropin, grain 1/150 to 1/100 by mouth every two to three hours until the physiological effects are produced. These are dryness of the mouth, slow pulse and dilation of the pupils. We have found that this appears to abort the disease in many cases, and, by lessening the secretions in the bronchi, prevents the formation of pneumonia. The patient following laporotomy is usually too weak to expectorate the fluid in the trachea and bronchi in such cases and by drying it up we obviate the necessity for it.

We use codeine or dionin freely for the cough, and in pneumonia the ordinary treatment with digitalis and forced fluids. We continue the atropin throughout the disease periods and find that only an occasional case fails to clear up by the fifth day.

CONCLUSION

In the prevention of post-operative pulmonary complications, therefore, we should apply such knowledge as is gained by a study of this sort.

(1) Patients with any respiratory in-

fection should not be operated on except in an emergency.

(2) During the influenza months great care should be taken in operating patients who can safely be deferred for a future time.

(3) All patients should have their throats painted with some antiseptic immediately before operation.

(4) The choice of an anesthetic is immaterial as long as a capable anesthetist is employed.

(5) The temperature of the rooms and corridors should be equalized, draughts being excluded as far as possible.

(6) An anesthetic room should be provided to avoid keeping the patient in the operating room corridor.

(7) The operating room should not be too warm.

(8) The patient should be thoroughly dried before leaving the operating room.

(9) A recovery room where the patient is under constant expert supervision for at least twelve hours after operation is essential.

(10) The patient should be placed in semi-erect position as soon as possible in order to allow free excursion for the lungs.

(12) At the first sign of beginning pulmonary involvement evidenced by a rise in temperature or pulse, sore throat or cough, the patient should be placed on atropin.

In a study of a series of operative cases at the Highland Park General Hospital over a period of slightly more than two years, it was found that too little attention is being paid to the proper recording of post-operative pulmonary complications, particularly the milder types. A critical study of 328 cases showed a morbidity of 13.7 per cent, the mortality being 0.61 per cent. Eight and eight-tenths per cent of the complications were lobar pneumonia, 33.3 per cent were broncho pneumonia, 44 per cent were bronchitis, 13.33 per cent were influenza. The causes of the complications were seen to be (1) sepsis in the operative field, (2) transmission of emboli by way of the veins and lymphatics, (3) prolonged Trendelenberg position and failure to obtain early change of position in bed, (4) the presence of respiratory infection before operation, particularly during influenza epidemics, (5) the chilling of patients by means of drafty rooms, corridors and elevators, and overheated operating rooms.

The anesthetic, if intelligently given, was shown to play no part in the production of post-operative pulmonary complications. Complications were shown to be more frequent after upper abdminal operations than other laparotomies and least frequent in other than abdominal surgery.

While it is doubtful whether we can ever entirely eliminate post-operative respiratory affections, a thorough understanding of their etiology will enable us to correct a great many causes which have definitely shown to be major factors in their production.

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AN UNUSUAL CASE OF SEX PERVERSION

W. F. MARTIN, M. D.
BATTLE CREEK, MICHIGAN

Although it is true that masochism is quite common among the insane, the following cited case is considered somewhat unusual and of sufficient interest to report.

Mr. G., an ex-service man, age 24, white, single, and suffering from Dementia Precox of the hebephrenic type was referred to us because of frequency and urgency of urination. In his history he confessed the habit of obtaining sexual gratification by the insertion of articles into the urethra and admitted the passage of a safety pin which had slipped beyond his control.

The X-ray plate showed a large sized safety pin, with the clasp portion directed outward, lying in the prostate urethra. In attempting to remove it through the urethoscope, it was inadvertently pushed into the bladder. Several unsuccessful attempts were made to remove it with a Ronger. A Young's straight urethoscope was passed into the bladder with the patient in the ex-

aggerated trendlenberg position. The pin was easily grasped at the spring end by urethral forceps and extracted by allowing



it to follow the urethroscope as it was withdrawn.

The X-ray film, as illustrated, shows not only the safety pin herein mentioned, but also some half a dozen needles in the left testicle, a needle apparently in the right inguinal region directed toward the head of the femur, and one in the mid-portion of the right thigh. A large safety pin, with the head removed and partially straight ended, is shown in the left inguinal region placed parallel with Pouparts ligament.

Other X-ray plates show some two dozen cambric needles and a number of talking machine needles inserted in the scalp, neck, and other accessible parts of his anatomy.

THE GROWING IMPORTANCE OF GELATINE IN INFANT FEEDING

Some time ago, Dr. Joseph Leidy, of Philadelphia said: "The combination of gelatine and milk in infant feeding was long used by my father and the late Dr. W. Pepper. I have continued to use it during the past thirty years, and am of the opinion that it gives results when many other combinations fail."

In recent months the growing interest of the medical profession in gelatine has been noticeable. Doctors are reporting gratifying successes in preventing such infant ailments as milk colic, regurgitation, vomiting, diarrhoea, excessive gas formation and constipation by 1 per cent addition of gelatine to the milk diet.

Thomas B. Downey, Ph. D., Fellow of the Mellon Institute, Pittsburgh, has by standard feeding tests, determined that the addition of pure, plain unflavored gelatine increases the nourishment obtainable from milk by about 23 per cent.

In discussing the digestibility of milks, especially by infants and young children, Alexander and Bullowa have pointed out that the protein content may not be considered as a unity because it is composed of two proteins, casein and lactoalbumin, with entirely dissimilar properties. Casein is an irreversible colloid exceedingly susceptible to coagulation by acid and rennin, while lactoalbumin is reversible and serves to protect the former.

Analysis shows that mother's milk contains a high proportion of lactoalbumin, the cascin being adequately protected. Mother's milk is resistant to coagulation by acids and rennin and its greater acceptability as the food for the infant is reflected by the low mortality where the young are breast fed. On the contrary, cow's milk contains a high proportion of casein and relatively little lactoalbumin; it is poorly protected. In consequence, the cascin of cow's milk is very susceptible to coagulation by acids and rennin. The mere coagulation of the casein is not the whole story, because the coagulation carries down much of the fat present, yielding masses that have a tendency to cohere and are of a texture that is quite resistant to penetration by the digestive juices. The voiding of such masses occurs too frequently in artificial feeding; nutrients are lost to the organism and it is quite probable that decomposition products of an undesirable nature are formed within these undigested curds.

This is in no way a reflection on the great nutritive value of cow's milk, which is indispensible but simply emphasizes the deterient condition it meets in the human stomach which must be neutralized to insure the complete assimilation of the milk nutriment.

From this viewpoint an obvious modification in artificial feeding is the protection of the unstable casein by the addition of suitable protective colloids.

It is of interest to give careful attention to gelatine in this place. As previously mentioned, its colloidal protection is of the highest order. It is also an excellent emulsifying agent and may function as such in either an acid or an alkaline medium. It is a common product of exceptional purity, and is an easily digested protein which is readily combined with milk. In combination with milk, the protein content is increased, food value is increased, volume is appreciably increased and digestibility is increased. Theoretically the employment of gelatine in the child dietary is sound, and laboratory experimentation and clinical experience substantiate these conclusions.

The approved method of combining gelatine with milk is as follows:

"Soak, for ten minutes, one level tablespoonful of pure, unflavored, unsweetened gelatine (Knox) in one-half cup of cold milk taken from the baby's formula; cover while soaking; then place the cup in boiling water, stirring until gelatine is fully dissolved; and add this dissolved gelatine to the quart of cold milk or the regular formula."

It must be remembered that there is a great difference in gelatine. Realizing the importance of absolute purity in any gelatine that is combined in milk or used in any way in the dietary, the laboratories of the Charles B. Knox Gelatine Company maintain a strict and constant control of the production of Knox Sparkling Gelatine. No sweetening, artificial flavor, or coloring, is ever added to this product.

PUBLIC HEALTH ACTIVITIES

Edited By

MICHIGAN DEPARTMENT OF HEALTH

BRIEF SUMMARIZED REPORT OF IRREGULAR TYPHOID ORGANISMS

MAX S. MARSHALL, Ph.D.

NOTE: These few notes were made not as an investigation per se, but with the intention of showing the possibilities of confusion in routine diagnostic work. The question may arise at any time with intestinal flora, and, with certain variations, with other bacterial groups.

Discussions of "sensitive" and "resistant" strains of bacteria, "lysogenic" strains, "L" types, and so on, have been appearing in the literature since the advent of the bacteriophage into bacteriology.

Although the bacteriophage, as such, has as yet found no applications in the diagnostic laboratory, it is already more than a theory that pathogenic organisms influenced by the bacteriophage are noted in diagnostic work. A strain of bacteria growing in the body may be associated with a bacteriophage active against that strain. The strain, perhaps in the body, undoubtedly outside the body on culture mediums, thus associated with bacteriophage, may be altered in such a way as to cause confusion to our ideas of true bacterial types. Inasmuch as the bacteriophage is still poorly defined, the statement may be made more general; due to uncertain factors occurring in the body of the patient, a bacterial strain originally functioning, for example, as a typical typhoid organism, at the time of infection, may be found by the bacteriologist as a "typhoid variant," not a true mutation form, but a form resulting from specific association with more or less identifiable factors. Such forms may be characterized by irregular morphology, irregular growth, irregular agglutination, even irregular fermentation reactions. It is therefore well to be on guard against such irregular forms, still apparently true to pathogenic types.

The following summary is based on cultures of strains isolated from brilliant green plates made from typhoid diagnosis specimen No. 2546 (April 4, 1925). Attention was called to the plates by typical "chewed" colonies of typhoid bacilli, noted by Miss Tao. Subcultures were made from two "normal" colonies and four "irregular" colonies for special observation. The following points may be made as regards cultural differences:

Growth On Agar:

Normal strains: regular moist homogenous growth. Photo No. 1.

Irregular strains: light gray-blue somewhat dry growth on which are superimposed numerous heavy, creamy white, slightly granular colonies, varying in diameter, and increasing in number with time. Photo No. 2

The photographs reveal other points in connection with growth on agar. The irregular strains would, did not experience teach the contrary, appear to be contaminated.

Growth On Triple Sugar Slants:

Normal strains: normal typhoid growth.

Irregular strains: less vigorous somewhat irregular growth, with identical but less vigorous fermentation reaction.

Growth In Infusion Broth:

Normal strains: normal typhoid growth, heavy homogenous turbidity with more settling.

Irregular strains: less turbidity, and considerable flocculation and settling.

Agglutination:

Normal strains: normal agglutination complete in three and one-half hours, 37° C. 1:1280 dilution.

Irregular strains: all gave specific agglutination, but in different and always lesser intesity than the normal strains in the same dilution and at the same time.

Fermentation:

All strains fermented or failed to ferment the same sugars, the irregular strains, however, being less vigorous in their reaction.

Morphology:

There was little or no difference with these cultures in morphology or motility. The tendency is frequently for the irregular strains to become more coccoid.



Photo 1. (a) and (b) Regular colonies picked from original brilliant green plates, streaked on plain infusion agar.



Photo 2. (a) and (b) Two irregular colonies picked from original brilliant green plate, streaked on plain infusion agar.



Photo 3. (a) Streaks from light growth of No. 2 (a) avoiding the superimposed "resistant" colonies.

(b) Streaks from a heavy "resistant" colony superimposed on lighter growth of No. 2 (a).



Photo 4. (a) Streaks from normal culture to which irregular (or lysogenic) culture had been added at a definite point previous to incubation; these streaks made from culture material taken 2 cm. from this point.

(b) Regular colonies isolated by dilute streaking of irregular colonies, streaked on plain agar.

(c) Irregular colonies isolated by dilute streaking of irregular colonies, streaked on plain agar.

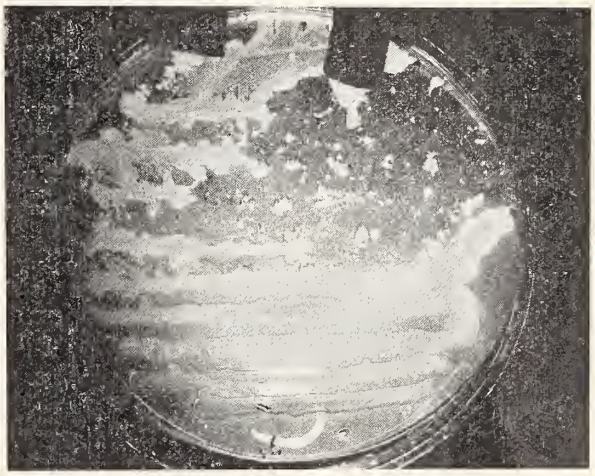


Photo 5. Streaks of normal culture to which irregular culture was added—path clearly visible.

PRENATAL CARE

The fact that maternal mortality rates have not been materially reduced in the United States Birth Registration Area or in Michigan since 1915, is proved by the chart given below, although the general trend of maternal mortality is downward.

MATERNAL MORTALITY

	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924
United States Registration Area	6.1	6.2	6.6	9.2	7.4	8.0	6.8	6.6	6.7	6.6
Michigan	6.7	6.8	7.4	8.6	7.7	9.3	6.9	6.9	7.0	6.5

Public health workers in all the states have realized that much must be done to bring about better conditions for women during pregnancy and labor in order to reduce the maternal mortality. The Michigan Department of Health, through its Bureau of Child Hygiene and Public Health Nursing, is attempting to educate the women of the state as to the need of adequate prenatal, natal, and postnatal care, in an effort to bring about a reduction of deaths of mothers in Michigan.

Probably the greater number of pregnant women is reached through the prenatal letters sent out by the Department. These consist of a series of letters, one for each month of pregnancy, and contain practical advice on diet, clothing, and general hygiene of pregnancy, and early in the series the pregnant woman is urged to place herself under the care of a physician who is to attend her at delivery,

and to visit him regularly during pregnancy. These letters are sent on request of the woman herself, her physician if she has already consulted one, or anyone interested in having her receive the letters. Together with the letters, other literature is sent including a book on Prenatal Care, diet lists and pamphlets on Care of the Mother and Care of the Child and Breast Feeding. The Department of Health has regular prenatal cards with space for the name and address of the woman, and duration of the pregnancy, and many physicians find it convenient to have a supply of these on hand so that when a prenatal case consults the physician, he may refer her to the Department of Health for the letters and literature. Since July 1922, 68,660 prenatal letters have been sent out and expressions of appreciation of their value have been received from physicians and from mothers.

Another way in which the Department is reaching the mothers is through prenatal clinics conducted by the Bureau of Child Hygiene and Public Health Nursing. Any prospective mother is eligible to attend these clinics, and all are given literature on prenatal care as well as a conference with the clinic physician, but only those not already under the care of a physician are given a physical examination, which includes blood pressure, pelvic measurements and urinalysis. A Wassermann is taken, and report on this is sent to the physician who is to attend the woman at delivery. A history is taken on every patient examined, and a complete copy of the history and examination sent to the physician whom she expects to consult, and she is urged to put herself under this physician's care as soon as possible after the conference.

Women's classes are also being conducted, consisting of a course of eight lectures and demonstrations on prenatal and infant care. The unit conducting these classes is composed of a woman physician who gives the lectures and a graduate nurse who gives the demonstrations. The lectures take up the essentials of prenatal care, stressing early medical examination and continuous medical supervision, and the care of the young infant and importance of breast feeding are also emphasized. The demonstrations are on the making of the layette, preparation and home sterilization of obstetrical kit, preparation of room and bed for home delivery, and preparation of bottle feedings (although the preference of breast feeding over bottle feeding is always made clear).

A practical demonstration of the value of a county nurse who can do intensive prenatal work is being put on by the Department, in Newaygo county. A preliminary survey was made of the physicians in the county, the proposed program explained to them and offered to the county through the physicians, who expressed their approval of the plan, which is as follows:

Under the supervision of the physicians in the county, the nurse is to call once a month on all prenatal cases referred to her by physicians or others interested, and is to act as a connecting link between the physician and the patient. She will endeavor to see that each pregnant woman calls on her physician as frequently as he wishes her to; that specimens of urine are submitted regularly for examination, and will at once report to the physician any abnormal symptoms such as repeated headaches, spots before the eyes or blurring of the vision, puffiness of the face, hands or ankles, persistent vomiting, muscular twitching, abdominal pains or vaginal bleeding (however slight). In her visits to the homes she will discuss what foods are necessary for the health of the pregnant woman and the baby. She will stress the importance of breast feeding, and advise the mother to plan to nurse her baby unless the physician finds some physical contra indication for breast feeding. She will observe conditions in the home, and whenever practicable, suggest needed changes in the home. She will show the mothers how to prepare and sterilize the supplies for a home delivery, and how to prepare the room and bed for the delivery.

When patients are referred to the nurse by anyone other than a physician, she will endeavor to get the woman under medical care as soon as possible, referring her to the physician whom the patient herself names. She will particularly try to discourage the employment of midwives, explaining to the women the importance of medical care during pregnancy. Although this work just started in Newaygo county the first of the year, already the nurse is getting an excellent response, and the co-operation of the physicians and the interest of all with whom she has come in contact promises well for the success of this educational program.

In these various ways, through literature, prenatal letters, prenatal clinics, womens' classes and county prenatal work, the Michigan Department of Health is attempting to broadcast the principles of prenatal care and particularly to reach the rural sections of the state. It is hoped that the efforts of all agencies working along these lines, through private physicians, prenatal clinics

already established in the larger cities, and public health nurses, together with the educational work of the Department of Health, may result in better prenatal care for the women in Michigan. This should reduce the complications of pregnancy and labor, many of which are preventable, and a corresponding reduction should follow in maternal mortality.

POLLUTION—A LIABILLITY

Present day modes of living demand something better than the outhouse, the cesspool or privy. They demand sanitary appliances in keeping with the rest of a comfortably furnished, perhaps elegantly furnished, home. They demand the rapid, quiet, and inoffensive removal of sewage and household wastes from the home. Civic requirements have been analogous to household requirements. Pavements must be flushed; trash and dirt must be removed quickly and with the least inconvenience to the traveling public.

These requirements have necessitated the installation of a carrier system which we call sewers. Because liquid flows down hill, and because sewage is largely water, the carrier systems have been designed to discharge at the lowest point possible, usually into a river, lake, creek or ditch.

For many years sewers have been discharging into these streams and nature has striven to carry the burden. Where the population has not become too concentrated, and where industry has not become an important feature in the community the streams have been able to care for this waste, but in the larger communities and industrial centers this burden has become more than can be handled, with the result that man must step in and assist.

When considering stream pollution in Michigan we are immediately confronted with the broad problem of "What is Michigan from a Natural Standpoint?" Based on export business, this state ranks third It is the heart of the furniture industry, the lungs of the automobile industry, and at least one leg of the iron and steel industry. Primarily, however, it is a nature state—a playground. Bounded on practically all sides by navigable water, with thousands of lakes and streams full of fish, and with forests abounding with game, it seems to have been designed as a playground for the nation. These waters are the state's greatest asset. Primarily they attracted the settlers. The desire for water flowing by the door, to look at, to fish in, to bathe in, to play on, is inherent in man. With the introduction of the automobile, providing economical transportation, this desire to be near the water has been largely gratified. Summer homes and all-year-round accommodations on streams and lakes are rapidly increasing in number. Very little of the Great Lakes shores is available at a reasonable price. Resorts and summer colonies are fast acquiring the banks of all streams. Last season better than 2,000,000 people from other states came to Michigan to satisfy that desire to "get back to nature" and be near the water.

In years gone by this wonderful asset of Michigan has not been fully appreciated by her people. These same streams furnished the means for more comfortable living and year after year has seen the steady increase in the amount of pollution which has been added to these streams. Year by year conditions have become worse and the asset has become a liability. The banks of many of the streams, especially for miles below the larger cities, have become unsightly, ill-smelling and undesirable. This condition prevails especially on the streams in the southern part of the state, where the cities are larger and closer together. By no means, however, are the cities along the Great Lakes in the northern part of the state free from blame. They have turned their greatest asset into a liability—they have spoiled, by fouling the beaches, the greatest attraction they had to offer those seeking a change of environment and an ideal vacation spot.

Public sentiment has been changing rapidly the past few years. Many people have come to realize this change in conditions, but not until the Legislature of 1925 did this sentiment show itself in the form of definite laws which gave the Departments of Conservation and Health the power to act. True, there have been laws against pollution, but without enforcement clauses. True, these departments have been watching and studying these changes in stream and lake conditions. Now it is felt that public opinion, as expressed by recent law enactment, is ready to do something. Consequently, the state has started action by calling in for conferences all the important towns in the Lower Peninsula. These conferences are regional in nature, where each municipality has a chance to learn the attitude of its neighboring cities. All have indicated that their municipality is in favor of cleaning up the stream.

It has been quite clearly indicated in these

conferences that the individual municipalities have for some time felt that the streams should be cleaned, but each municipality hesitated to do anything because others along the stream would not be making the same attempt. These conferences are welcomed because they will require all towns on the same stream to work on the problem at the same time, and the spirit of cooperation manifested at these conferences is very gratifying.

It is expected that the next few years will see the installation of sewage disposal plants in such numbers, and the removal of industrial wastes with such rapidity, as has never been seen in any other state.

The municipal water supplies in Michigan are largely from wells, except for the towns on the Great Lakes where those waters are largely used. This eliminates the most important Health phase—namely, a pure, wholesome drinking water. The important Health phases to be considered are the use of the water for other purposes, such as bathing, and the nuisances which the fouled waters produce.—J. M. H.

FINED FOR FAILURE TO REPORT BIRTHS

Dr. C. C. Jordan, 17181 Hamilton Road, Detroit, was arrested on January 22, for violation of Act 343, P. A. 1925, in failing to report a birth. Doctor Jordan pleaded guilty and was fined $25.00 and costs amounting to $4.25, or twenty days in the Detroit House of Correction. Doctor Jordan paid his fine.

The report for January shows a notable increase in the number of cases of pneumonia reported, also in whooping cough; and a slight increase in the number of cases of scarlet fever reported. Measles show a very great increase, evidently due to the beginning of the periodical rise that can be expected approximately every three years. All other diseases show less than January of the preceding year.

PREVALENCE OF DISEASE

January, 1926

	Total Cases Dec. 1925	1926	1925	Average 5 Years
Pneumonia	715	864	522	741
Tuberculosis	432	329	448	379
Typhoid Fever	103	39	54	53
Diphtheria	453	403	421	949
Whooping Cough	684	1,030	505	554
Scarlet Fever	1,386	1,453	1,310	1,465
Measles	1,215	4,837	707	948
Smallpox	75	93	151	414
Meningitis	13	7	14	18
Poliomyelitis	1	1	6	3
Syphilis	1,255	1,247	1,215	799
Gonorrhea	799	725	827	860
Chancroid	6	10	17	17

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health

January, 1926

	+	—	+—	Total
Throat Swabs for Diphtheria				1556
Diagnosis	37	696		
Release	159	302		
Carrier	2	318		
Virulence Tests	25	17		
Throat Swabs for Hemolytic Streptococci				1135
Diagnosis	494	221		
Carrier	169	251		
Throat Swabs for Vincent's	19	710		729
Syphilis				6094
Wassermann	4	21	1	
Kahn	1148	4851	69	
Darkfield				
Examination for Gonococci	182	1496		1678
B. Tuberculosis				458
Sputum	75	357		
Animal Inoculations	4	22		
Typhoid				361
Feces	45	151		
Blood Cultures	2	28		
Urine	2	36		
Widal	55	41	1	
Dysentery				65
Intestinal Parasites				33
Transudates and Exudates				177
Urine Examinations (not classified)				574
Blood Examinations (not classified)				710
Water and Sewage Examinations				714
Milk Examinations				52
Toxicological Examinations				4
Autogenous Vaccines				6
Supplementary Examinations				576
Unclassified Examinations (includes Dick toxin standardization, Lapeer)				1149
Total for the Month				16071
Cumulative Total (fiscal year)				128152
Decrease over this month last year				7283
Outfits Mailed Out				17469
Media Manufactured, c.c.				387370
Diphtheria Antitoxin Distributed, units				25218000
Toxin Antitoxin Distributed, c.c.				82520
Typhoid Vaccine Distributed, c.c.				2270
Silver Nitrate Ampules Distributed				2728
Examinations Made by Houghton Laboratory				2050

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE OIRECTION OF THE COUNCIL

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A. J. Mac Kenzie.....Port Huron
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Grand Rapids, Michigan

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The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications, or advertisements.

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MARCH, 1926

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

MINUTES OF MEETING OF EXECUTIVE COMMITTEE OF THE COUNCIL OF THE MICHIGAN STATE MEDICAL SOCIETY

1. The Executive Committee of the Council met in its regular February meeting at Grand Rapids, February 1, 1926, at 6 o'clock, p. m. There were present John B. Jackson, chairman; R. C. Stone, B. R. Corbus, George LeFevre, Harvey G. Smith and F. C. Warnshuis.

2. The Secretary asked instruction relative to the amendment of our Articles of Incorporation in accordance with the action that was taken at the Midwinter meeting of the Council. The Secretary was authorized to secure the services of an attorney to comply with the legal point that was involved.

3. The Secretary presented the communication from the Ingham County Medical Society and also the communications from the Chamber of Commerce at Lansing, giving positive assurance that the new hotel would be open by June 1 and that all would be in readiness by September 1. The local Society presented data showing that there would be some thousand rooms available in the hotels at Lansing. With this information at hand and in accordance with the action taken in the Midwinter meeting of the Council, the Secretary-Editor was instructed to proceed with the perfecting of arrangements for our annual meeting on September 14, 15, 16.

4. In a recanvass of the referendum vote as to the type of annual meeting programs, it is noted that the membership is about equally divided in regard to the one day of clinical meetings and one day of section meetings. In view of the expressions thus accorded by our members the Secretary was instructed to provide a program that featured one day of clinical meetings and one day of section meetings and that the first day should be devoted to section meetings and the second day to clinical meetings.

5. The Secretary presented communications that he had of the program of the Wayne County Medical Society and stated that representatives of the State Medical Society should meet with the members of the Wayne County Medical Soociety for the discussion of medical interests. The date of March 2 had been assigned for that meeting. On vote the Secretary was instructed to arrange for the program and speakers and would advise Wayne County Medical Society of their appearance on the above designated date.

6. The Secretary was instructed to draw to the attention of the President the vacancy in the office of the Vice-Speaker of the House of Delegates to request the President to appoint a member to fill this vacancy as provivded by our by-laws.

7. The Executive Secretary submitted a schedule of Post Graduate Conferences which was approved after considerable discussion as to types and length of programs that shall characterize these conferences this coming year.

8. Adjournment was had at 10:00 p. m., the Executive Committee to meet in Detroit at 5:00 p. m., March 2.

ANNUAL MEETING

Place: Lansing.
Time: September 14, 15, 16, 1926.
Program: Sept. 14, House of Delegates; Sept. 15, Section meetings; Sept. 16, Combined section clinics.

Assurances having been received that the new hotel at Lansing will be completed by July, thereby affording ample hotel accommodations, the Council's Executive Committee has taken the above captioned action.

The Scientific program will consist of one day of section meetings and one day of clin-

ical meetings thereby meeting the expressed wishes of our members. The Ingram County Medical Society will be our host. Further details will be imparted in subsequent issues of the Journal.

COUNTY SECRETARIES CONFERENCE

The benefits derived from our annual conference of County Secretaries have been productive of great value to our Society. It has served to bring our component County Societies into closer contact. It has materially aided the County Secretary and the members of each County Society has profited thereby. Our 1926 conference will be held on March 30 at Grand Rapids. The following program has been arranged:

SECRETARIES' CONFERENCE

Grand Rapids, March 30, 1926.

12:00—Luncheon.

1:00—Statements of Aims and Purposes of Secretaries' Conference as Related to the State Society.

C. G. Darling, M. D., Preisdent.

1:15—A Practical Forecast for Scientific and Organized Medicine."

F. C. Warnshuis, M. D.

1:45—Address.

Olin West, M. D., General Manager and Secretary, American Medical Association.

2:15—General Discussions—

1. "The Minimum Program, Basis, Aims."
Harvey George Smith, Executive Secretary.

1. (a) Scientific Programs.
(b) Periodic Physical Examinations.

Sec. 2. Social and Informal Activities.
Sec. 3. Scientific Teams.
Sec. 4. Public Health Information and Education.
Sec. 5. Publicity, Plans and Methods in Michigan.

J. B. Jackson, M. D.

2. The Post Graduate Conferences—
(a) How to avoid Competition with County Society Activities.
(b) What Changes or Additions would be Valuable?
(c) How May Attendance be Increased?

3. The County Society—
(a) What Facts would Aid in Formulation of Activities?
(b) Who May Secure Them?—How?
(c) How May Hospitals and County Society Programs be Supplemental to Each Other?

5:00—Adjournment.

Every Secretary is urged to arrange to attend. Every County Society should take formal action instructing their Secretary to attend. Dr. Olin West, Secretary and General Manager of the A. M. A., has consented to meet with us and his address and discussion will be of definite inspiration. A personal letter has been addressed to every Secretary to which we solicit a prompt reply.

HYGEIA

Hygeia on January first had a circulation of 40,547. Of the some 4,000 doctors in Michigan, 841 subscribe for this publication and 958 lay subscribers are reported. This is not to Michigan's credit.

Hygeia is your profession's official organ for imparting to the public health information. It is a medium whereby the people are enlightened as to the truths of scientific medicine. It acquaints the layman with the fallacies of the cultist and the quack. It informs the individual as to the aims and ideals of your profession and your service. Your national organization, your State Society have expressed the need for such education. They have endorsed and recommended Hygeia. They urge the support of every doctor to Hygeia. From the figures quoted, we in Michigan are not recording this support. We should individually and collectively.

The personal recommendation is made to each member to:

1. Subscribe to Hygeia, read it and place it on his reception room table.

2. To recommend it to lay patients and friends.

3. To urge your County Society to cause Hygeia to be placed in public reading rooms.

Michigan should record at least 3,000 subscriptions among the Doctors and 5,000 among lay people. Shall we not do so this spring? Your subscription will make this possible.

To afford each member an opportunity to support this work, our national organization has appointed two Field Agents of the A. M. A., who will personally call on our Michigan doctors. When these representatives call we trust that they will be accorded a cordial reception. The information they will impart will well be worth your time. These representatives will also be available to call upon leading lay people that you may recommend, and secure their interest in Hygeia. Your assistance in indicating such persons wil be of material value.

By the above outlined procedures, with our members' co-operation, we can obtain the aims sought in public education on medical and health subjects. We are depending upon your co-operation.

VICE-SPEAKER

By reason of a vacancy existing in the office of Vice-Speaker, President Darling has filled the vacancy by the appointment of Dr. J. G. R. Manwaring of Flint.

DUES

March 31 is your last day of grace. Our by-laws provide that a member in arrears on April 1 shall be placed on the suspended list. Suspension entails loss of medico-legal protection, discontinuance of the Journal, loss of membership in the A. M. A. and loss of profits attainable from conferences and meetings. No Doctor can afford to deprive himself of these benefits. We urge that you promptly remit your dues to your County Secretary to avoid suspension.

GOVERNMENTAL LEGISLATION

The following merits every members' consideration, support and action:

Editor of The Journal:

The Federal Government now treats at the taxpayer's expense persons suffering from disease and injury unrelated to any service rendered the people. To do this, it even transports them, if necessary, from their homes and usual medical attendants to more or less remote government hospitals and salaried medical officers.

Bills are now pending to increase the number of possible beneficiaries of this government bounty and to extend the bounty so as to make it include out-patient as well as hospital treatment. A statement of the case is embodied in the accompanying reprint from The Journal.

Unless your state association desires the enactment of such legislation, it should immediately protest against it, to every member of your Congressional delegation. Your several county societies should send protests to the senators and representatives from their respective jurisdictions. And finally, representative physicians with whom they may be acquainted, urging that there be no extension of the medical gratuities already granted. In fact, to carry out the resolution of the House of Delegates set forth in the accompanying reprint, it will be well to protest even against the continuance of the gratuities now bestowed.

To facilitate action, a letter of identical tenor is being sent to both the President and the Secretary of your society.

I shall appreciate it if you let me know what action you take with reference to this matter.

Yours truly,

Wm. C. Woodward, Executive Secretary,
Bureau of Legal Medicine and Legislation.

P. S.—House bill is pending before the Committee on World War Veterans' Legislation. Representative Bird J. Vincent of your state is a member of that committee. It is particularly important that protests be filed with him immediately. His vote counts twice: first in determining committee action, and later in determining action by the House. W. C. W.

PROTEST THE SHEPPARD-TOWER ACT

The Sheppard-Towner Act will continue in force two additional years—until June 30, 1929—if two bills[1] introduced into Congress to accomplish that end are permitted to become law. Otherwise, the act will expire by a self-contained limitation, June 30, 1927. The proposed continuance of federal domination over health matters in which the state is constitutionally supreme is in itself pernicious. The proposal is, moreover, astutely timed to force on Congress at the very threshold of the next presidential campaign, the question of making the system permanent. It will be remembered that the original proposal was also incorporated as a plank in the platforms of both leading political parties. The proponents of the Sheppard-Towner scheme are apt to brush aside facts and figures by an emotional appeal on behalf of mothers and babies. Any discussion of the scheme in the days immediately preceding a presidential campaign is certain to be complicated further by considerations of political expediency, arising out of the question as to who is going to deliver the women's vote, and where. The act became a law five years ago. Millions of dollars of federal and state moneys have been spent to enable its supporters to establish its merits. Who will say that the evidence submitted indicates that they have done so? Their present plea for the continuance of the scheme for only two years may well be construed as an admission that they have found nothing in the evidence that would justify them in asking for enactment of the procedure on a more lasting basis. The Sheppard-Towner Act has been condemned unreservedly by the House of Delegates of the American Medical Association. The pending bills to continue the act in effect are clearly within the ban of such condemnation. Now is the time to protest against their enactment. The Committee on Interstate and Foreign Commerce, House of Representatives, to which the House bill has been referred, at the present writing has not made its report. Even after it does so, the bill must be acted on by the House. The Senate bill is still to be acted on by the Senate Committee on Education and Labor, and by the Senate. If the Senate and the House agree on a measure, it will still have to be approved by the President. State associations and county societies, and the physicians of the country generally, should immediately telegraph or write to the President and to their Senators and Representatives protesting against the enactment of these bills.—Jour. A. M. A., Feb. 6, 1926.

1. S. 2696, A Bill to Extend the Provisions of Section 2 of the Act Entitled "An Act for the Promotion of the Welfare and Hygiene of Maternity and Infancy, and for Other Purposes." H. R. 7555, A Bill to Authorize for the Fiscal Years Ending June 30, 1928, and June 30, 1929, Appropriations for Carrying Out the Provisions of the Act Entitled "An Act for Promotion of the Welfare and Hygiene of Maternity and Infancy, and for Other Purposes," approved Nov. 23, 1921.

THE TREND OF VETERANS' RELIEF LEGISLATION: STATE MEDICINE

Through paragraph 10 of section 202 of the World War Veterans' Act, 1924, the federal government planted the germs of state medicine in our body politic and entered directly into competition with the private practitioners and private hospitals of the country. Under the provisions of that paragraph, the government now treats at public expense diseases and injuries having no relation to any government service, military or otherwise. Veterans of the Spanish-American War, of the Philippine insurrection, of the Boxer rebellion and of the World War, suffering from neuropsychiatric or tuberculous ailments or diseases, or from paralysis agitans, epidemic encephalitis or amebic dysentery, or from the loss of sight of both eyes, are entitled as a matter of right to treatment and care in hospitals under the Veterans' Bureau, at government expense, whether their ailments or diseases are or are not of military origin. Veterans of any war, military occupation or military expedition since 1897 are entitled to that treatment and care

whenever the director of the Veterans' Bureau finds facilities available, no matter what may be the nature of their disabilities, and no matter what may be their origin. The government pays traveling expenses incident to such treatment. Whether an applicant for treatment is rich or poor, is able to pay for treatment or belongs to the dependent classes, makes no difference, except that, in admitting patients of the latter class, preference is given to those financially unable to pay. The only condition the applicant must comply with is to prove illness or injury, to abandon his home physician and the hospitals of his own place of residence, and to enter a government institution, for treatment by physicians paid by the government.

The act providing these gratuities passed on June 7, 1924. During the fiscal year immediately following, July 1, 1924, to June 30, 1925, 13,243 persons claimed under it, without regard to the nature and origin of their disabilities, the privileges of government hospitals. They represented 17 per cent of the total number of patients admitted, 76,-812. The duration of the stay of these 13,243 patients in the hospitals can be inferred from the fact that the average stay per patient of all patients discharged from Veterans' Bureau hospitals during the year was 93.7 days. The average inpatient operating expense for each patient daily during the year, so far as available figures permit it to be computed, was $3.98. If, then, the 13,243 patients treated for disabilities regardless of the origin of such disabilities be regarded as average patients, who stay an average time, 93.7 days, at an average cost of $3.98 a day, the expense to the taxpayers of the country of these patients while in hospitals was $4,938,659.02. This was exclusive of interest and depreciation on the extensive and costly hospital plant that must be maintained to render such service available; exclusive of traveling expenses of the patient hospitalized, which the government paid; and exclusive of the overhead expenses incident to the work of the Veterans' Bureau in administering and supervising these hospitals. And these figures represent only the first year's work of the bureau. As veterans become more familiar with the privileges granted, and as they become older and more subject to disability and disease, they may be expected to resort to government hospitals in increasing numbers, with increasing frequency, and at increasing expense to the government.

The gratuities already authorized will not mark the end of the bounties bestowed by an open-handed government at the expense of the taxpayers, if the proponents of such legislation have their way. Bills are now pending in Congress to extend to every beneficiary under section 10 of the World War Veterans' Act, 1924, outpatient treatment, in addition to the hospital treatment already authorized, and to grant the privilege of hospitalization and of outpatient treatment to Spanish-American War nurses, contract surgeons and contract dentists. Another bill proposes to extend a like privilege of hospitalization to all disabled ex-service men in the war between the states, including Confederate veterans. Another bill may be construed as entitling all civilian employees who served overseas during the World War to hospitalization at any time during the remainder of their natural lives, for any disease or disability. Other bills propose to give every disabled ex-service man, including Confederate veterans, the degree of disability not being stated and regardless of the origin of such disability, not only hospital care, but medical treatment, nursing, and all necessary care. And there are other bills yet to come.

As the disabilities for which benefits are given or proposed need have no relation to military or any other government service, or to the World War or to any other war, but may originate at any time in the future, out of any cause, government bounty need not be restricted apparently either to persons who served in the military service or even to civilian employees who served overseas. Persons who served overseas with the American Red Cross, the Salvation Army, the Y. M. C. A., the Knights of Columbus, and other auxiliaries would seem to have an equal claim to such benefits. And civilian employees who did not and could not serve overseas, members of draft boards, government employees generally, persons employed in ship yards, munition factories and other essential industries seem to be equally entitled to consideration. Their services were in many cases more valuable to the country at home than they would have been abroad, and many remained at home because of conditions over which they had no control, possibly because the government desired them to do so. And lest some legislator use this paragraph against us, be it said at once that its intent is sarcastic.

The theory underlying the existing and the proposed legislation providing hospital and outpatient care for veterans and certain other classes for disabilities not of service origin is not apparent. Heretofore, it has always been presumed that a person needing medical or surgical treatment should provide it for himself. If he cannot provide such treatment, it has been presumed to be the duty of the state to do so. Only when disease or injury has been incurred in the federal service has it been believed that the federal government should provide relief. Existing and proposed legislation, however, provides for the treatment of injuries and diseases that have not been incurred in the federal service. Such legislation must be based on some hitherto undiscovered principle of federal liability or create a new concept of it.

Possibly, this gratuitous federal treatment may have been conceived as a reward for military service. But a reward supposedly bears some relation to the nature and extent of the service rewarded, and this government bounty does not. Commissioned officers of all ranks and enlisted men fare equally. Men who never came within a thousand miles of danger are rewarded on the same basis as those who lost eyesight or limbs in No Man's Land. The struggling family of the man who gave up his life in the trenches is left to provide medical relief as best it can, for his widow and children get no hospital or medical care from this legislation. If this bounty is a reward, it must be considered, then, not as a reward for service in line of duty, but a a reward for contracting disease or incurring injury outside the service, and for abandoning home and home ties and becoming a dependent of the government and an inmate of a government institution; for these are the circumstances on which the reward is based and to which it is proportioned.

What the effect of the enactment of legislation of this character will be on the future of medical profession is problematic. It seems likely, however, that by tending to withdraw patients from the care of private practitioners, and to place them under the care of salaried officers of the government, the practice of medicine will be made less attractive. The rewards of government service are not now generally such as to attract the type of men who seek to become physicians, or to hold them after they have once entered the service. This is illustrated at present in the experience of the Vetrans' Bureau, which, in order to retain the many desirable physicians who have entered its service

and to attract others, has found it necessary to seek legislation organizing the medical corps of the bureau into a "commissioned" body, so as to give it greater dignity, more secure tenure of office, and reasonable prospects of promotions and of retirement.

But apart from the general effect of such legislation on the profession is its tendency to withdraw patients from small cities and towns, and from country districts, to the larger cities, where the government hospitals are located. The opportunities for livelihood for physicians in the smaller cities and towns and in country districts will thus be diminished, and the inadequacy of medical service for those who must reside in such places and who are not entitled to free government treatment, or who cannot leave their homes to obtain it, will become more serious than ever.

Recognizing the danger in the situation, the House of Delegates, at the Atlantic City session, May 25-29, 1925, adopted the following resolution:

Resolved, That the American Medical Association, through its accredited representatives and with the assistance of the accredited representatives of constituent organizations, whose cooperation is solicited, put forth every honorable effort to secure an amendment to the Veterans' Act of 1924, which will do away with federal free medical and surgical services and care for all veterans except those whose disabilities have been caused by war service for our country, or at least restrict free medical and surgical services and care to those veterans who are unable to pay for the same.

In accordance with this resolution, the constituent associations of the American Medical Association and the medical profession generally may be expected to protest against the bills now pending, and to ask a repeal of the legislation already enacted tending to federalize the practice of medicine and to nurture the germs of a system of state medicine.

EXCERPTS RELATIVE TO PARAGRAPH 10, SECTION 202, WORLD WAR VETERANS' ACT, 1924, FROM PROCEEDINGS OF THE HOUSE OF DELEGATES, ATLANTIC CITY, N. J., MAY 25-29, 1925

(From Report of the Board of Trustees)

* * * * * * *

The medical profession yields to no other body in its desire to see every veteran receive just reward for service rendered during the war. It gladly leaves to Congress the determination of the measure of that reward. The privileges conferred by this legislation are in the nature of such a reward. They are not conferred as a recompense for damage resulting from military or naval service, for they are available for injuries and diseases of all kinds that have not resulted from such service. Neither are they conferred to relieve distress, for equal privileges are granted to the rich and to the poor alike. How illogical it is to make the measure of this reward proportionate, not to the nature and extent of service rendered, but to the extent to which the recipient may chance to suffer from illness and injury altogether independent of his service, it is not necessary to discuss.

Why the government should enter into competition through subsidized physicians and hospitals with physicians and hospitals that are not subsidized, and that depend for their very existence on the patronage they receive from the sick and injured is not apparent. It has not yet authorized hungry, cold and inadequately clothed veterans to draw their supplies from Army and Navy commissary departments, nor has it authorized veterans who are inadequately housed to take up their dwellings on military and naval reservations. Protection from hunger, cold and exposure are as necessary to health and happiness as is medical and hospital care in time of illness and injury; yet the government has not entered into subsidized competition with the grocer, the coal man, the dealer in men's furnishings and the landlord.

The situation may almost be stigmatized as communistic medicine in its most militant form, endeavoring to edge its way into American life under the cloak of patriotism. It merits the most careful consideration of the House of Delegates.

RESOLUTION OFFERED IN BEHALF OF THE OHIO STATE MEDICAL ASSOCIATION

Dr. Ben R. McClellan, Ohio, for the Ohio State Medical Association, submitted the following resolutions, which were referred to the Reference Committee on Legislation and Public Relations:

Whereas, The World War Veterans' Act of 1924, Subsection 10 of Section 202, provides for hospitalization, medical and surgical service, and necessary traveling expenses "to veterans of any war, military occupation, or military expedition since 1897 not dishonorably discharged, without regard to the nature or origin of their disabilities," and

Whereas, Under the terms of this act, a large number of men are to be provided with hospital care, medical and surgical treatment, at government expense as long as they live, for diseases and injuries, without regard to the origin of such diseases and injuries, whether incurred in military service or not, and without regard to their financial regard to their financial ability to pay for the needed attention, and

Whereas, The benefit conferred is illogically distributed, in that the receipt of the benefit is dependent on the ability of the beneficiary to leave work, family and home, and not on financial ability, nor on the nature of the disease, and

Whereas, Such beneficiaries must be kept in government hospitals until they are completely recovered, even though they might be more economically and better cared for at home, because of the provisions in the law that the government will house, feed and nurse them, and will provide them with medical and surgical attendance so long as they remain in hospitals, but will not contribute in any way toward their relief after they leave the hospitals, provided the incapacity is not due to military service; therefore, be it

Resolved, That the House of Delegates of the American Medical Association in annual convention in 1925 expresses its disapproval with this provision of a federal law which furnishes a government subsidy tending to deprive the sick and injured from the privilege of engaging physicians and surgeons of their own selection in their home communities, and be it further

Resolved, That the House of Delegates of the American Medical Association disapproves the plan of furnishing financial aid or personal service to beneficiaries able to pay, as tending to pauperize an independent, self-supporting part of our citizenship, and, be it further

Resolved, That such subsidizing as proposed is

an unjust and unneeded tax on a people already overburdened by governmental expenditures, and, be it further

Resolved, That such subsidies be limited to those veterans whose disabilities have arisen from and in the course of military service, and in line of duty.

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Report of Reference Committee on Legislation and Public Relations—The resolution introduced by Dr. Benjamin R. McClellan, Ohio, pertaining to the World War Veterans' Act of 1924, Subsection 10 of Section 202, providing for hospitilization, medical and surgical service, and necessary traveling expenses "to veterans of any war, military occupation or military expedition since 1897 not dishonorably discharged, without regard to the nature or origin of their disabilities," has been thoroughly examined by your committee. Your committee unanimously recommends its adoption.

Adopted May 26, 1925.

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(From Address of President (then President-Elect) W. D. Haggard of Nashville, Tenn.)

Under the terms of this act, a large number of men, without regard to their financial status, are to be provided with hospital care and medical and surgical treatment at government expense, as long as they live, for all diseases and injuries, without regard to the origin of such diseases and injuries. The only condition is that they leave family, friends and employment, and enter a government hospital. This looks very much like "state medicine," pure and simple. It requires only one step more, too, to confer similar privileges on the wives and the widows, and on the children, of the beneficiaries under this act; and such a step would not be inconsistent with what has already been done, as the benefit conferred is not dependent on any relation between the disease or injury and military service.

The benefit conferred is, moreover, illogically distributed; for it makes the receipt of the benefit dependent on the ability of the beneficiary to leave work, family and home, not on financial ability nor on the nature of the disease. A veteran in the early stages of disease, who is as yet able to continue at work, cannot receive any benefit unless he leaves his employment; and this he may be unable to do, because the law does not provide for the support of his family during his absence. Other veterans, who by reason of distance or family ties are unable to enter a government hospital, or who because of the serious nature of their illness or injuries cannot be transported to a government hospital, cannot benefit by the provision of law set forth above. The convalescent veteran must be kept in the hospital until he has completely recoverd, even though he might be much more economically cared for at home, because the government will house, feed and nurse him, and will provide him with medical and surgical attendance, so long as he remains in the hospital, but will not contribute a penny toward his relief after he leaves if his incapacity is not due to military service.

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Incidentally, the illogical character of this legislation is shown by the fact that medical and surgical treatment, and hospital care, are no more necessaries of life than are food, clothing, fuel and shelter. If logically the government is to provide medical and surgical treatment and hospital care, regardless of the financial ability of the veteran to pay for them and without regard to the origin of the disease or injury the government should by the same reasoning provide food, clothing, fuel and shelter, It would be interesting to know what the taxpayer, the grocer, the clothing dealer, the fuel man, the landlord, would say to a proposition of this kind.

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It is obvious that there are thousands of veterans who are able and willing to pay for their medical service. It surely could not be the intent of the bill to pauperize nearly five million Americans by giving them free medical care for any and all ailments irrespective of their origins. Only a minority of the ex-service men would favor such a drastic change in the economic situation of the medical service of this country. Already a government hospital at Memphis which had only 50 beds before the enactment of the World War Veterans' Act has now 325 beds and is running practically full. Approximately 75 per cent of its inmates are being treated for conditions in no way connected with their military service. It is apparent that this will continue as people become familiar with the provisions of this act. If carried out to its logical conclusion it would be an unlimited drain on the resources of our government and on the already overburdened taxpayers. All previous pensions and other governmental expenses will sink into insignificance compared to the stupendous enormity that is possible under this act.

An amendment should be undoubtedly made to restrict it to those veterans who are unable to pay for their services and to be determined in some definite manner. No group of men in our nation gave more unstintingly of their services and made more sacrifices than the medical profession. More than 35,000 men were in the service. They have now and ever have been willing to live up to their ideal that no one is too poor for their ministrations. For the economic welfare of the nation and the proper relation of the profession and the government each to the other and to the sick of this country, the objectionable features of the intended benevolence to our deserving veterans should be corrected.

The American Medical Association must take cognizance of this individually and as a body. I can recommend no more urgent matter to the attention of the House of Delegates for its interpretation and action than this question of such stupendous moment.

Report of Reference Committee on Reports of Officers.

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Your committee endorses all that President-Elect Haggard said concerning the medical care of the veteran and the various impositions and inconsistencies that are made possible through the War Veterans' Act of 1924, which has been made the subject of protest by this house, and offers the following resolution:

Resolved, That the American Medical Association, through its accredited representatives and with the assistance of the accredited representatives of constituent organizations, whose co-operation is solicited, put forth every honorable effort to secure an amendment to the Veterans' Act of 1924, which will do away with federal free medical and surgical services and care for all veterans except those whose disabilities have been caused by war service for our country, or at least restrict free medical and surgical services and care to those veterans who are unable to pay for the same.

Adopted May 28, 1925.

Editorial Comments

The Kent County Medical Society has adopted the following resolution relative to Free Clinics:

Whereas, The Kent County Medical Society desires at all times to support and co-operate in any legitimate action which tends to benefit and improve the standards of public health, and

Whereas, It is the desire of this Society to be liberally charitable and considerate of individuals and organizations deserving free medical assistance for these purposes, and

Whereas, We believe that such assistance should be freely given to the deserving and not rendered in such a manner as to pauperize individuals otherwise self-supporting, and

Whereas, We believe that the public funds raised for charitable assistance of the needy should not be dissipated for service to persons financially able to pay nor used for the maintenance of Free Clinics rendering services in such cases, and

Whereas, We believe that all requests by organized agencies and institutional free clinics for free medical services to others than the needy is an imposition upon the physician and the supporting public, and

Whereas, We have specific knowledge of frequent impositions upon the members of this Society and upon the public welfare funds, The Kent County Medical Society resolves:

First, That it positively disapproves the dispensation of free medical services by any Clinic or Hospital to patients financially able to pay.

Second, That physicians and surgeons associated with any clinic or hospital shall discontinue free services to patients able to pay.

Third, That until such a time as a thorough and impartial study of the question of free dispensation of medical services through organized agencies and institutional clinics has resulted in the proper co-ordination and standardization of social investigations and the strict regulation of their present abuses, this Society demands,

That an approved social investigator be appointed for each of the three hospitals and the Clinic for Infant Feeding; that these investigators be under the jursidiction of the superintendent and medical staff of these various institutions; and that they shall co-operate with the social investigator of the Welware Union in preventing free medical service to others than the needy.

Fourth, That the Permanent Committee of The Kent County Medical Society and a Committee of the Welfare Union jointly undertake a study of this entire question for the purpose of making recommendations for its proper regulation.

Fifth, That this joint committee give to The Kent County Medical Society authentic information upon the following subjects:

1. The proportion of patients receiving clinical care who are unworthy of this service.

2. Information concerning the disbursement of welfare funds for the care of such cases and the relation of the demands for funds for such purposes to the requested increase in the 1926 Welfare Budget.

3. Suggestions as to the co-ordination of the efforts of various agencies in investigating and disposing of cases for free medical services These suggestions should contemplate increased efficiency and reduction of expense by eliminating duplications of effort and an adequate distribution of patients to the various Hospitals.

4. The system of rendering free medical services by the City Welifare Department. This should include information as to why the city pays nominal fees to certain physicians for services to the same class of patients cared for by physicians associated with other agencies and hospital clinics without compensation.

Sixth, That the members of The Kent County Medical Society shall conscientiously co-operate in making these resolutions effective and that failure to do so shall constitute grounds for action by this Society, in accordance with Section 9 of the By-Laws.

Bay County Society has adopted an agreement whereby night calls are charged for at the following rates: 6 to 9 o'clock, $4.00; 9 to 12 P. M., $5.00; 12 to 6 a. m., $7.00. The announcement to the public was made by a County Society advertisement, printed in the local paper. This evoked the following Editorial Comment in the Bay City Times Tribune:

IT COSTS MORE TO BE SICK

If you are bound to be sick, stave it off until daytime. Don't get sick after 6 o'clock in the evening, and especially don't feel like calling a doctor after 12 o'clock at night. If you do, you are going to pay for it good and plenty.

But if you are bound to be sick after 6 o'clock in the evening, get sick between 6 and 9 o'clock. It is cheaper—only four dollars for a call. Then if you cannot regulate the hour when you are going to be sick, and should happen to be in need of an administering angel in the form of a doctor, between 9 and 12, it is going to be cheaper by two dollars than if you waited until after midnight. The new grade of prices is $4, $5 and $7.

And as we said before, if you are going to be sick at all, fix it so the illness will come on in the day time.

However, we are informed that these union wages are somewhat elastic. The physician will use his head when making charges based on the ability to pay. A poor family can have more sickness than a rich family, and not be charged so much for it. On the other hand there are physicians who are sorry to profit on the misfortunes of other people, and are not so strict about clinging closely to the union scale fixed by the Medical Society.

But the doctors haven't raised the night rates so much because they want the money as for the purpose of discouraging many unnecessary calls late at night. A physician who has put in a busy day needs rest at night just as much as other people and he knows, only too well, that a great many of the calls made upon him at night are unnecessary and this is his way of telling it to the public.

A fractured femur is a serious injury. Its treatment requires mechanical ingenuity. Do not treat this fracture indifferently. In a study of 111 cases Ashhurst reports 63 per cent recovering without functional disability, 30 per cent had moderate functional results and 7 per cent were incapaciated. These are figures of hospital cases where every appliance, X-ray and skilled assistants and nurses aided in the treatment. In spite of this 7 cases out of the 100 became incapacitated. It must be apparent that a greater number of disabled will result if you do not afford your fractured femur cases every possible attention and care.

We urge that each member write his Congressman and Senator relative to proposed national legislation as outlined on our editorial page. You

should voice your opinion so that your representatives may be able to act in accordance with public and professional opinion.

We welcome news items. We regret that we can't glean them from press reports, hence we are dependent upon their submission by individual members. May we not receive reports of medical and individual interest from your community?

The American Medical Association's annual meeting will be held in Dallas, Texas, April 19. This year's program is to be unique and interesting. You will enjoy a week in Texas environment.

Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

Editor of The Journal:

I'm calling on you for help! Emory University is raising an expansion fund, a large part of which will go to the Medical School.

Enclosed you will find a news item and ad. If you feel that your Journal can donate space for either or both of these we will be glad to reciprocate with you at any time you can use space in our Journal.

Thanking you in advance for your kind consideration, I remain

Sincerely yours,
Allen H. Bunce, Editor.

Editor of The Journal:

This will acknowledge your letter of the 2d inst. advising that the meeting of the Executive Committee of your State Society held recently, Lansing was designated as the place for holding your annual meeting on September 14th, 15th and 16th, 1926.

It is our expectation to have the Hotel Olds in operation long before this period and we note that you have designated the Hotel Olds as headquarters for your meeting.

I shall keep this letter on file and will communicate with you later to ascertain the names of the guests who will occupy the rooms, with a view to making definite reservation. It will be my desire to meet you in Lansing and go over any other details you may have to discuss.

We shall certainly be very happy indeed to have this convention held in Lansing and this is the first reservation the Hotel Olds has received for accommodations, and it will be our earnest desire to take the very best care of your distinguished guests.

Very truly yours,
CONTINENTAL-LELAND HOTELS, INC.,
M. M. Alloy, Vice President.
A. B. Wallace.

Editor of The Journal:

I am reporting the following case, hoping that it may prevent the inconvenience of some other physician and of his patient.

It is a case of anaphylaxis or serum sickness. In our late Medical works, it is well described. Martinet has a very good article in his late work.

Dr. Chester A. Stewart of Minneapolis has a very brief but comprehensive article in the Journal of the A. M. A., of January 9th, with case reports that make very interesting reading for those of us who are called on to use serums for both prevention and cure of disease.

In my case I had just completed the third inoculation of diphtheria toxin-antitoxin in a girl of six years. At the second injection, she had a slight reaction.

On the fourth day after this inoculation, she came down with scarlet fever. Having been informed by one who has worked with scarlet fever serum, that it was a safe proceedure to use it after the diphtheria preventive inoculation, I at once gave a full dose of Squibb's scarlet fever antitoxin, made under the Dick method.

Before giving the serum, the temperature was 102, pulse 86, and respiration 30. Within twelve hours the pulse had gone up to 154, respiration to 54 and temperature to 105.

She had a very severe urticaria with enormous wheals develop and had angioneurotic odema of mild degree. She developed a broncho-pneumonia, but I do not attribute this to the serum reaction. This temperature, pulse and respiration rate continued for ten days, when it began to subside gradually.

Her mental state remained normal through it all, and the kidney function was good. I did not use any adrenalin owing to the broncho-pneumonia. On the ninth day, I used gram doses of calcium lactate four times daily and from it got very good results.

At this writing, the eleventh day, her temperature is 101, pulse 116 and respiration 24. She has fully recovered from the broncho-pneumonia.

I do not think I will again use any of the horse serums in any patient who has had within a year's time, any inoculation of any other serum or vaccine, as I do not wish to go through the ordeal of the past ten days.

I would be very glad to hear from others, relative to any such experience.

Yours very truly,
Theo. F. Heavenrich.

State News Notes

Dr. Robert L. Dickinson and Dr. J. O. Polak of Brooklyn, addressed a group of invited doctors at the Grand Rapids Clinic on February 14th.

The Twelfth Annual Meeting of the Medical Women's National Association will take place April 18-19, at Dallas, Texas, in conjunction with the American Medical Association meeting.

The headquarters of the M. W. N. A. are the Hotel Baker. Dr. May Agnes Hopkins, Medical Arts Building, Dallas, Texas, is the Chairman of the Committee on Arrangements.

Women intending to go to this meeting should

promptly make reservations either through Dr. Hopkins or directly at the Baker Hotel, as there will be a big crowd there. Hotel rates are reasonable, a double room with bath averaging $6.

The terms for railroad transportation should be looked up in the A. M. A. Journal, but in many places where there are large numbers of members of the Medical Women's National Association, special cars for the women may be run.

Medical women passing through New Orleans are especially invited to stop over there and will meet with a cordial welcome from the New Orleans medical women, represented by Dr. Elizabeth Bass, 3513 Prytania street, who is President of the Women Physicians of the Southern Medical Association.

The Texas women, cooperating with the chairman, Dr. Hopkins, are making most attractive arrangements for the meeting. All medical women, whether members of the M. W. N. A. or not, are most cordially invited to participate in this meeting.

EMORY UNIVERSITY TO RAISE $4,500,000 FOR MEDICAL EDUCATION

Medical education is to receive a total of $4,500,000 from the $10,000,000 Expansion Fund now being raised by Emory University, Atlanta. This money will be distributed as follows: Endowment for the School of Medicine, $2,000,000; endowment for the Wesley Memorial Hospital, $2,000,000; Pathology Laboratory and Hospital Administration building, $225,000; Nurses' Home, $200,000; completion of Chemistry building, $75,000. The goal of the campaign as a whole is to provide $6,500,000 in endowment and $3,500,000 in new buildings to cover the estimated needs of all six schools of the University for the next ten years.

The Emory School of Medicine, formerly the Atlanta Medical College, has long been one of the three largest and strongest A-grade Medical Colleges in the South. It has a total of 3,400 alumni now practicing in all states of the Union but two. Dr. Russell H. Oppenheimer is Dean of the faculty of 130 men, among the part-time members of which are some of Atlanta's most eminent physicians and surgeons.

For many years the School has been handicapped both in research and teaching work because of inadequate endowment. The enrollment in each class has been limited to sixty men at a time when more physicians of Georgia alone are dying each year than the two Medical Colleges of the state are graduating. The School is looking to its alumni and to the other friends of medical education to give the funds so urgently needed for expansion.

THE WAR NURSE

BY ANNE CAMPBELL

(Written for and read by the author at a dinner given by Friendship Lodge, F. & A. M., to War Nurses at the Masonic Temple, Detroit, Jan. 15, 1926).

To that pale soldier who half-conscious lay
On his rude cot, one of a straight, white row,
When she came softly in at break of day,
And spoke to him in gentle tones and low,
She seemed to be his mother bending now
To fix his coverlet and soothe his pain.
He felt her healing hand upon his brow
And fell asleep, a little boy again.

And when noon came, and brought her to his side,
She was his sister, very white and small—
The sister whom he teased until she cried.
He called her and she answered to his call.
Her hand was like a blossom on his own.
The lighted room grew very, very dim.
His sister tiptoed out. He was alone;
She left a memory of home with him.

Then in the dusk, he saw her tall and white.
She held his wrist with dainty finger tips.
She was the lady of his fond delight—
His lovely bride. He dreamed he kissed her lips;
And drifting off to sleep, he saw once more
The fragrant apple boughs of sunny May.
The robins sang of love as once before
In that remembered, magic yesterday.

Then when night brooded dark above his bed,
She was a shining presence, ever near—
An angel shape that kept him comforted,
And banished trembling doubt and ghostly fear.
With folded wings, she watched the long night through.
Her angel hands dropped peace so sweet, so deep,
He smiled into her eyes as small boys do,
And, clinging to her white robe, fell asleep.

And when he wakened, close beside him stood
A war nurse, bravely giving death the lie—
A member of a noble sisterhood
Who valiantly guard life. He did not die.
He was too weary then to understand
Mother and sister, bride and angel bright
Had led him gently back from that far land—
One woman in a uniform of white!

RESEARCH RESULTS

Recent research in the field of medical chemistry, coupled with scientific physiological and clinical investigation is effecting profound changes in the practice of medicine.

Discoveries have already been announced which are changing the methods of treating diabetes, high blood pressure, and syphilis. So promising is the research work now being carried on in universities, and by large pharmaceutical manufacturers, that further important discoveries may soon be expected. It is not too much to hope that definite discoveries may even be made in the field of cancer and tuberculosis.

During the past year, announcement of the discovery of several new and importantn medicinal chemicals has been made by the Research Department of the Abbott Laboratories, North Chicago, Ill. Among these discoveries are Butesin Picrate, a new chemical body, combining both anesthetic and antiseptic properties.

Other important research results from the Abbott Laboratories are Butyn and Benzyl Fumarate, both of which are fully described in "New and Non-Official Remedies."

During the past ten years the following important Council-Passed medical chemicals have been manufactured by, and added to the list of the Abbott Laboratories: Anesthesian, Acriflavine, Barbital, Chlorazene, Dichloramine-T, Cinchophen, Neocinchophen, Neutral Acriflavine, and Procaine.

These notable additions to the list of American-made, medicinal chemicals promise much for the future cordial relations between scientific, manufacturing chemistry and progressive medical practice.

Our Society Business and Activities

HARVEY GEORGE SMITH
EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

THE MINIMUM PROGRAM

Since the approval of the Minimum Program by the Council and the Executive Committee of the State Medical Society much activity is evidenced by County Medical Societies throughout the state. The Minimum Program is an organized method of attaining measured results by each County Society and at the same time aims to improve and insure the continued development of Scientific Medicine in every locality of the state. Further, it is not a program designed for selfish purposes but to assist every adult in a better understanding of the scope and value to health of each individual and each community of the state. It is directed to protect the youth of the commonwealth and each person so that the greatest quantity of health may be secured by each and all. The Medical Profession realizes as does every individual as well as the government that no progress of extent and intent can be accomplished without a sturdy and virile population. Health is the foundation of attainment for each individual, for each community, for each profession, for each business. Health is directly concerned with progress, accomplishment, happiness.

During the past three months which involves the period since the adoption of the Minimum Program by the State Society, sixteen County Medical Societies have approved the program and put it in action. The following Societies include the list: Jackson, Shiawassee, Kalamazoo, Oceana, Muskegon, Chippewa-Luce-Mackinaw, Genesee, Ingham, Alpena, Tri-County (Wexford, Kalkaska, Missaukee), Ionia-Montcalm, Calhoun, Jackson, Ottawa, Barry and Oakland. It is believed that Bay and Kent counties are also in this group but no report is recorded from these Societies.

Wayne county, which is the largest and most progressive society in the entire organization has been and is at work conducting a program very similar to that recommended by the State Society.

There are a number of societies that have [illegible] their action. They are at work adapting the program to their own requirements, looking to the protection of the aims of the Minimum Program. No Society can hope to serve its membership, neither the county of its jurisdiction, in this modern age without a definite program.

POST GRADUATE CONFERENCES

Plans are being completed for two Post Graduate Conferences during the month of March. The first of these will be held in the Fourteenth District, at Adrian on March 9th. This conference will serve the County Medical Societies of Washtenaw, Lenawee and Monroe. The second conference will be held in the Fourth District, at Kalamazoo on March 16th. The member Societies of this district are: The Kalamazoo Academy of Medicine, which includes Kalamazoo, VanBuren and Allegan counties and Berrien and Cass counties.

These conferences will be the second for each district. The interest manifested in the first series augurs well for the success of those being arranged. The speakers will discuss subjects that will be of practical value to each practitioner, and will cover the most modern advances in Scientific Medicine.

The State Society plans to serve each member as completely as possible and insures that service to each member if each will avail himself of the opportunities presented and brought to him.

"KEEPING YOUR LIGHT UNDER A BUSHEL"

County Medical Societies occupy strategic positions. They foster the advancement of modern Scientific Medicine. They serve as unit organizations for cooperative study and fellowship and represent the authority of Scientific Medicine within their boundaries. They serve their members in order that each resident may be served to the complete knowledge of the Science represented. This has been the aim and ambition of every Society in the past. Is each to be content with this occupation?

Some slight study of communities, cities and counties reveals the fact that during

the past ten or fifteen years various organizations have come into existence within the same geographical field occupied by County Medical Societies. Such organizations as Rotarians, Kiwanis, Lions clubs, Parent-Teacher Associations, Womans' clubs, Civic Welfare Societies, Charity organizations, Y. M. C. A.'s, Y. W. C. A.'s, Men's clubs, Farm Bureaus, Granges, County Nurse units, and numerous others are in existence and doing in most cases valuable and constructive work. What relationships exist between any or all these and the County Medical Societies? How many of them know of the work of the County Medical Society, its aims and scope of activity? Have not some of these organizations taken over responsibilities that rightfully belong to County Medical Societies or again, has the County Medical Society been consulted when new programs directly related to the health of the people have been proposed? Why do these conditions exist? Are there not unknown possibilities for service to other organizations and communities by County Medical Societies? Is it not time that each Society make a study of the facts involved, and fulfill the function revealed by the facts? Is not each County Medical Society "Keeping its light under a bushel?" Is not each implored by the Good Book to "Let its Light Shine?" There is as strategic a position for the present and the future as there has been in the past.

Deaths

Dr. J. S. Nitterauer, Ontanagon, on January 24, 1926. For many years Dr. Nitterauer was secretary-treasurer of the Ontanagon County Society.

County Society News

WAYNE COUNTY

Wayne county is evidently out to establish a record, judging by the large number of medical luminaries it has scheduled to appear before its members this year. The last few weeks have been particularly noteworthy for the high caliber of the speakers and their essays, and it is needless to add that the majority of the members have been on the job to take advantage of the offerings of the program committee.

On January 18, no less an authority than Dr. Leonard G. Rowntree of the Mayo Clinic, delivered a most instructive address on our present knowledge of diseases of the liver and kidney.

The week of January 25th was given over to the activities of the Cancer Committee—activities which have made themselves felt throughout the entire community. Without exaggeration, the work of the Cancer Committee has been more productive of results this year than in any previous year.

The annual Beaumont Lectureship Foundation Series was rendered this year by Prof. A. J. Carlson, of the University of Chicago Department of Physiology, January 25th and 26th. His three lectures, dealing with studies on the physiology of the alimentary tract, were delivered in masterful fashion by this most human of physiologists, and as a result, an additional laurel was added to the many the Lectureship Foundation Committee has already earned.

Directly upon the heels of this most excellent series of lectures, came Dr. W. R. Campbell, of the University of Toronto, with an instructive talk before a capacity crowd on "Acidosis, Coma and Infections in Diabetes Mellitus," delivered February 1st. On February 8th, Dr. Udo J. Wile of Ann Arbor read a most interesting paper on the "Wassermann Fast Patient."

A real treat is in store for the local medical fraternity with the meeting of the Congress of Internal Medicine and the College of Physicians during the week of February 22. This meeting, planned out in the form of a Post Graduate course in Medicine, will undoubtedly be so well attended by the members of the profession that there will be few physicians left to care for the ailing during that particular week.

The first series of Orthopaedic Lectures, delivered last March by Dr. Robert B. Osgood, of Harvard University, has been published in book form, and the copies are now ready for distribution. The price of the books has been placed at $2.00, and may be secured at the Wayne County Medical Society building.

Beginning February 22, 1926, the regular weekly meetings of the Society will be held on Tuesday night instead of on Mondays as heretofore.

The last volume of the Beaumont Lecture Series on "Goiter," by Chas. H. Mayo and Henry S. Plummer will be available shortly. The present lectures, "Studies on the Physiology of the Alimentary Tract," will be available in book form in approximately sixty days.

The first regular monthly meeting of the Highland Park Physicians' Club, January 7, was attended by over seventy-five per cent of the active membership.

The program of four good papers on the "Diagnosis of Cancer," by Drs. Witter, Livingston, Northrup and Cohoe, was one of the best ever given. The discussion of these papers by eight other members was certainly valuable to all present.

At the beginning of the meeting, a certain amount of business necessary to the growth and welfare of the club was harmoniously taken care of. Two new applicants were accepted as members. One new application was presented.

Through the work of a good program committee for 1926, some of the really Big Men from some of the largest cities outside of Michigan, have been engaged.

The second regular monthly meeting of the Highland Park Physicians' Club was held Thursday, February 4, 1926, at 8:30 p. m. Program: "Prevention, Diagnosis, and Treatment of Goitre," by O. P. Kimball, M. D., Dayton, Ohio.

WASHTENAW COUNTY

The regular meeting of the Washtenaw County Medical Society was held at the new University Hospital in Ann Arbor, Thursday, January 28. We hope you can be with us.

Program: 4:00 to 6:30 p. m., Demonstrations and inspection of University Hospital; 6:30 p. m., Dinner, followed by regular business meeting and committee reports. "The Essentials of a Physical Examination," Doctor Hugo Freund, of Detroit.

Read the inclosed message from the Program Committee. Each physician in attendance will be given a copy of the History and Examination Form as prepared by The American Medical Association.

Come at four o'clock or as soon thereafter as possible.

T. S. Langford, Secretary.

FROM THE PROGRAM COMMITTEE

"The insidious encroachment of the chronic diseases, notably those of the cardio-vascular renal system, together with the increase in the mortality of cancer, have added much to the responsibilities of the medical profession. Tuberculosis, notwithstanding the vigorous campaign waged so consistently by both laity and profession, is still a tremendous and not noticeably diminishing factor in mortality rates.

"Organized medicine has offered as the most worthwhile contribution in this connection complete physical examination of all individuals at periods not less frequent than one year. While the details of a general physical examination are understood and practiced by us all, many methods are being suggested from time to time, the worth of which the man in general practice finds difficulty in evaluating. So that your committee has thought this a matter of sufficient importance and interest for us to spend one entire evening in reviewing the various methods employed and suggested in the making of a complete general physical survey with an attempt at standardization. To that end we have secured the services of Doctor Hugo Freund, of Detroit, for the evening of Thursday, January 28, at the University Hospital, who will take as his subject, "The Essentials of a Physical Examination." Doctor Freund is too well known to require any introduction to the profession of Michigan, and we are hoping that through his presentation and the free discussion of this very important subject we will arrive at conclusions satisfactory to ourselves and of great value to our community.

"It is interesting to note in this connection that of all the demands which the public has made upon us and those which we have voluntarily offered in the interest of the public, this is the first in which the doctor will receive any material reward for his work. It is confidently expected that this matter is important enough and the interest in its development great enough to insure 100 per cent attendance."

GRATIOT-ISABELLE-CLARE COUNTY

The January meeting of the Gratiot-Isabella-Clare County Medical Society was held in the Alma City Hall, Thursday, January 28, 8 p. m., Eastern time.

Program: "Diet in Health and Disease," C. D. Pullen, M. D. Discussion opened by T. J. Carney, M. D. Report of cases by M. F. Brondstetter, M .D. Discussion opened by B. C. Hall, M. D.

At our last meeting the following officers were elected for 1926:

F. J. Graham, president; H. F. Kilborn, vice president; E. M. Highfield, secretary.

It was voted to make the annual County Society dues for 1926, $2.00 which, together with the State Society dues makes $12.00 now due. Now is the time for those who failed to pay their dues last year to forget their grievances and join for 1926.

Of late there has been an inclination to neglect the meetings when some of our members appear on the program. This is not conducive to good meetings. The members who have consented to contribute to the program need your encouragement. If some of you who won't consent to contribute would try it once, you will learn that those who do, are at least entitled to the encouragement, that your presence means.

The February meeting of the G. I. C. was held in the Alma City Hall, Thursday evening, February 11.

Meeting was called to order by President Graham with 6 members present. The application of Dr. A. D. Hobbs, of St. Louis, for membership, was read by the Secretary, after which he was duly elected to membership. Dr. Rod G. Hendricks of the Childs Welfare Department of the State Board of Health being present, was called on to explain the work of that department.

Dr. C. D. Pullen then gave an instructive talk on diet in health and disease. This was discussed by nearly every one present.

F. J. Graham, M. D., President,
E. M. Highfield, M. D., Secretary.

LENAWEE COUNTY

The regular monthly meeting of the Lenawee County Medical Society was held in Tecumseh, February 4, 1926, at the residence of the president, Dr. H. H. Hammel.

The meeting was called to order by the president. The minutes of the last meeting of January 15, 1926, were read and a financial report by the treasurer were approved as read.

A tentative program for the year was outlined and submitted for discussion.

A letter from Harvey G. Smith was read regarding the District Post Graduate Conference. The secretary was requested to proceed with plans for the meeting.

The feature of the meeting was an excellent informal lecture by Dr. J. K. Ormond, chief of Genito Urinary Service of the Henry Ford Hospital, Detroit, on Diseases of the Kidney, Ureter and Bladder. Dr. Ormond illustrated his talk with lantern slides of pyelograms, showing the characteristic Roentjen Ray findings in tuberculosis, hydronephroma, stones of the kidney, ureter and bladder, double ureter, ureterial stricture and malignant tumors of the kidney. Dr. Ormond gave brief case histories of each condition and also exhibited pathological specimens of a number of the cases presented.

The meeting was opened to general discussion and social hour followed by a supper served by Mrs. H. H. Hammel.

Every member of the Society feels deeply indebted to Dr. Ormond and our host and hostess.

R. G. B. Marsh, Secretary.

CALHOUN COUNTY

The second regular meeting of the Calhoun County Medical Society was held on February 2, at the Post Tavern.

Following dinner an excellent program was given by Dr. J. S. Wier of Rochester, Minnesota. His subject was "The Practical Consideration of Some Recent Developments on the Study of the Liver and the Biliary Tract."

He covered briefly the essential points in the more recent liver function tests and their value in

diagnosis. He also briefly discussed the various forms of treatment of liver disease, bringing up the subject of some of the newer drugs such as Novasurol, which is particularly of value for the relief of ascites from long standing disease of the liver.

After active discussion the meeting closed at 9:30 p. m. Attendance at the dinner, thirty and at the meeting, sixty.

L. E. Verity, M. D., Secretary.

The first regular meeting of the Calhoun County Medical Society was held at the Post Tavern, Tuesday evening, January 5, dinner at 6:30 p. m., and program at 7:30. The minutes of the previous meeting were approved as printed in the Bulletin. The second reading of the application for membership of Dr. Bertha L. Selmon was read by the acting secretary, Dr. R. H. Fraser. Upon approval of the Board of Directors, the application was voted upon. It was moved that the rules be suspended and the secretary cast the unanimous vote of the Society. This was done and Dr. Selmon declared elected to membership.

Bills were presented as follows: Post Tavern, annual banquet, $217.50; Phoenix Printing Co., January Bulletin, $9.40; Coggans, flowers, $5.25; Dr. L. E. Verity, postage and mailing Bulletin, $1.30; total $223.45.

The committee on fees for attendance upon the poor, reported in detail the progress made, including the response from other counties to a questionnaire directed to the current customs elsewhere. The committee will continue for another month,

The death of the wife of Dr. Doran for whom flowers had been sent by the Society, was referred to the Necrology Committee.

The guest of honor, Dr. John Youmans of Ann Arbor, Michigan, was then introduced by the president. He spoke on "Our Newer Knowledge of the Liver and Some of its Practical Applications."

The paper was discussed by Drs. Gubbins, Hills, Roth, Lewis, Dobson, Winslow. Dr. Youmans was accorded a hearty vote of thanks.

The meeting adjourned at 9:30 p. m. Attendance at the dinner, twenty-five, and at the meeting, fifty-three.

Dr. R. H. Fraser, Secretary, pro tem.

ABSTRACT

The liver has been credited with the following functions: 1. Secretory and excretory (via bile). 2. Glucose metabolism. 3. Protein metabolism. 4. Detoxication. 5. Anaphylactic action in connection with the reticulo-endothelial system. 6. Blood clotting. 7. Blood pressure regulation.

During the flow of bile the tonus of the duodenum is held to be more important than the sphincter of the papilla. Cholagogues are of two types, first acids, second, liver products, liver itself, bile salts, bile (pigments, bile salts, cholesterol). Mann, successfully removing the liver in experimental animals, leads in liver study. With the liver removed, bile pigments increased in the blood coming from the spleen and from the tissues. Urobilinogen forms only under the action of bacteria in the intestine. Arsphenamin is 80 per cent excreted in the bile, neo-arsphenamin 30 per cent. Mann holds that the liver maintains blood sugar because the glycogen in muscles is not available to the blood. The animal dies unless glucose is injected. Glucose must go through glycogen before utilization. A liver rich in glycogen is safer from poisons. It is suggested that carbohydrate feeding should precede arsphenamin injection.

On extirpation of the liver, metabolism no longer results in the formation of urea; the ammonia is high.

In the reticulo-endothelial system the Kupfer cells of the spleen, liver and lymph nodes, formed from embryological antecedents of the vascular tissue, relate to phagocytosis and to anaphylaxis. The liver forms blood in the embryo and in conditions of stress in post-natal life, such as the destructive hemolytic jaundice and severe anemia. It is a factor in the formation of blood fibrin.

The work of the liver in reducing blood pressure, as studied by the Canadian observers, indicates that the active principle is not a protein, and therefore does not share with proteins their non-specific effect on blood pressure.

The speaker then dealt with different tests of which he emphasized the importance in the ascertaining of these functions; first, the excretion of dyes; secondly, carbohydrate metabolism tests; third, toxic destruction; fourth, conjugation of toxins; fifth, the estimation of bile pigments; sixth, the determination of fibrin in the blood.

Glucose tolerance is not a test of the liver on account of numerous other factors. Fructose can be made use of in carbohydrate tests, because it can be converted by the liver. Widal's test is a toxin test in which the liver destroys the toxin split products but where it is damaged, these get through, causing a leucopenia instead of the customary leukocytosis after a meal (milk).

Tests of the excretion of dyes are through their recovery in the bowel or by the duodenal tube (Rountree) or by calculation from the amount left in the blood (Rosenthal) after one hour. Retention of the dye has been proved in acute catarrhal jaundice and in cirrhosis of the liver. Metastasis are hardly able to affect this due to the factor of safety of the liver.

Bile pigments in the blood are estimated first by inspection of the serum, secondly by dilution of the serum until colorless (example, one in twenty). Free bile is tested directly and indirectly, making possible the diagnosis of latent jaundice which does not stain the skin, e. g. in a case of stone. Secondary anemias never increase the bile pigment in the serum. The test for urobilogen in urine is a test dependent upon disappearance of color, on dilution. No tests of the liver are pathognomonic, all being affected by the enormous reserve power. The speaker made a plea for their use in practice emphasizing their value in chronic cholecystitis, pernicious vomiting of pregnancy, Wilson's disease and other diseases.

References: Green, A. M. A., Nov. 7, 1925. Mann, ibid. Wallace and Dymond, Archives of Int. Med., June, 1925. Rosenthal, A. M. A., Oct. 24, 1924.

R. F. H.

KALAMAZOO COUNTY

The meeting was called to order by the president, Dr. McNair, at 7:40 p. m. The minutes of the last regular meeting as read from the Bulletin were approved by a unanimous vote. Dr. Hubbell was elected secretary pro tem in the absence of the regular secretary, Dr. Shackleton.

Dr. Light moved that the best wishes of the Academy and the hope for a speedy recovery be conveyed to Dr. Shackleton. Carried.

Under the order of communications Mr. Edward Desenberg of this city made a personal plea for aid from the Academy in medical inspection of the Summer Vacation Camp. He presented a brief

summary of the activities of the Camp and outlined its rapid growth since it was founded by him in 1916. Dr. Boys moved that the matter be referred to tthe committee on Public Health with the power to act. Carried.

Dr. Beebe was appointed as the third member of the membership committee to meet at once.

Dr. Simond's paper.

Drs. Light and Hubbell were appointed to convey the resolutions of the Academy to Dr. Shackleton. The membership committee had no report.

Dr. Smith's paper.

R. J. Hubbell, Secretary, pro tem.

SHIAWASSEE COUNTY

The regular monthly meeting of the Shiawassee County Medical Society was held at the city hall auditorium February 2, 1926.

The principal address was given by Dr. H. E. Randall of Flint, who spoke on "Shock." He covered the symptoms of shock, described the physiology of oxygenation of the blood, and declared that there were 900 square feet of lung surface, made possible by the peculiar formation of the air cells, while the outside surface of the body was only 25 square feet.

Dr. Randall also discussed brain surgery in connection with his subject, and illustrated his talk by citing several cases from his experience.

Mrs. Ivah Dyer, visiting nurse for the Metropolitan Life Insurance company, described her prefessional activities, the maternity service following birth, and prenatal service through advice.

Dr. George J. Curry of Flint, spoke briefly during the discussion following the conclusion of Dr. Randall's address.

W. E. Ward.

EATON COUNTY

I write to give you in brief a report of the activities of the Eaton County Medical Society.

Our annual meeting was held Dec. 3, 1925 at which time the minimum program for county societies as recommended by the State Society was brought up for discussion and adopted.

Officers elected for 1926 as follows: president, Dr. Quick, Olivet; vice president, Dr. V. J. Rickard, Charlotte; secretary-treasurer, Dr. H. J. Prall, Eaton Rapids. Directors and time of expiration as follows: Dr. Phil Quick, 1926; Dr. Stanley Stealey, 1927; Dr. V. J. Rickard, 1928; Dr. C. A. Stimson, 1929; C. S. Sackett, 1930.

Dr. Phil Quick elected delegate and Dr. H. J. Prall alternate for 1926.

On January 29, 1926, we held our first meeting of the new year at the Community Hospital, Charlotte, Michigan, with eleven members present. Considerable helpful discussion on various topics took place and further plans for complying closely to the minimum program were worked out.

We are hoping to be able to have our February meeting in conjunction with the district conference in Lansing during that month.

H. J. Prall, Secretary.

HILLSDALE COUNTY

The annual meeting of the Hillsdale County Medical Society was held at the Mitchell library on Wednesday, January 27, at 7:30 p. m., the vice president, Dr. H. C. Miller in the chair.

After the reading of the minutes, the chairman introduced the speaker of the evening, Dr. Reuben Peterson of the University of Michigan, who took up the subject of "Abnormal Obstetrics." Dr. Peterson's address covered many phases of such cases including contracted pelvis, placerita previa, post partum hemorrhage, cord around the neck among others, with their danger signals and the diagnosis, prognosis and treatment in the various complications.

Dr. Peterson covered as much of this vast subject as could be done in the limits of a single evening.

His suggestions in regard to diagnosis prognosis and treatment were most clear and logical and were backed up by his many years of personal experience.

The lecture was discussed by Dr. Sawyer, followed by Drs. Green, Bell, Miller and others and he answered a number of questions from the members, and in summing up Dr. Peterson made a strong plea for more careful and conservative obstetrics and warned against rushing too recklessly into surgical methods and the heedless and careless use of new and powerful drugs, giving as an example pituitrin. In this connection, he deplored what he termed "the wave of radicalism" that seems to be sweeping the country in obstetrical management.

Dr. Peterson's splendid address was listened to with closest attention by those present and at its close was given a vote of thanks.

The Society then proceeded to the election of officers for the ensuing year.

It was moved, supported and carried "That the secretary be instructed to cast the vote of the Society for the present officers for the coming year," in spite of the refusal of Dr. Johnson to serve as president for another term.

Moved, supported and carried "That Dr. Bell be made delegate to the State Society, with Dr. Bower as alternate."

It is greatly to be regretted that owing to the severe storm, so few members were present and that none of those from the Branch County Society who had been invited to attend, were there to hear Dr. Peterson's most instructive address.

Adjourned.

I am inclosing the report of the annual meeting of the Hillsdale County Medical Society. As you will see, the old officers are retained and are: Dr. J. H. Johnson, Hillsdale, president; Dr. H. C. Miller, Hillsdale, vice president; Dr. D. W. Fenton, Reading, secretary-treasurer; Dr. T. H. E. Bell, Reading, delegate State Society; Dr. C. T. Bower, Hillsdale, alternate.

Owing to the lateness of the hour and the wild storm, no attempt was made to collect dues, but this will be done soon.

Yours fraternally,

D. W. Fenton, Secretary-Treasurer.

OTTAWA COUNTY

The Ottawa County Medical Society held its regular meeting and luncheon at the Warm Friend Tavern, Holland, on Tuesday, December 8. There were sixteen members present from Saugatuck, Fennville, Grand Haven, Coopersville and Holland. The president, Dr. W. C. Kools was unable to preside. The vice president, Dr. Stickley of Coopersville was in the chair. After an excellent luncheon served by Manager Tyson of the Tavern,

Dr. Hooker, a dermatologist of Grand Rapids was introduced as the speaker.

Dr. Hooker gave a very interesting and highly instructive address on "The More Common Skin Diseases, Their Diagnosis and Treatment." A number of patients were exhibited following which the members gave comment.

The minutes of the previous meeting were read and approved. The "Minimum Program" was again discussed and unanimously adopted.

The annual election of officers was held. Dr. Stickley of Coopersville was chosen as president of the Society. Dr. Wallser of Saugatuck was elected vice president and Dr. O. Vander Velde of Holland as secretary-treasurer. Dr. R. Nichols of Holland was chosen delegate to the next state convention with Dr. Cherry of Grand Haven as alternate.

Regular monthly meeting was also held January 12, with fourteen members present. After the usual luncheon Dr. O. Vander Velde of Holland read a paper on "Ruptured Corpora Lutea Hemorrhagica," with a report of four cases. Routine business followed. A plan was devised whereby one general program committee was to be appointed to outline the work for the coming year required in the "Minimum Program" and to appoint subcommittees to take charge of the programs for each meeting as designated.

Dr. Wm. M. Tappan, one of our members and secretary of the Society during 1923, 1924 and 1925, has just returned from the Mayo Clinic where he had an operation for toxic goitre. Dr. Tappan is improving fast and will soon be active again in our Society.

O. Van der Velde, M. D., Secretary-Treasurer.

GRAND TRAVERSE-LEELANAU CO.

The regular meeting of the Grand Traverse-Leelanau County Medical Society was held February 9, at 8 p. m., at the General Hospital. Owing to the inclement weather there was not the usual large attendance. Our members are generally a loyal bunch, and give almost a 100 per cent support to their Society.

This meeting was in charge of Dr. Swartz, who had prepared a splendid program. Dr. W. C. Kinyon, local dentist, gave an instructive paper on "The Newer Things in Dental Surgery," stressing the closer relationships which should exist between the physician and dentist.

Mr. Thomas D. Meggison, attorney, explained in a able manner "The Relation of the Physician to the Patient from a Legal Standpoint." Both these papers were thoroughly appreciated and freely discussed. This was one of our best meetings.

Drs. Holdsworth and Lawton, members of this Society, with their families, are spending the winter in California.

The January meeting of this Society was held January 12 at the General Hospital, with fifteen members present.

Dr. E. F. Sladek gave a very interesting paper on "The Colon, a Neglected Source of Focal Infection," which was freely discussed by many.

The officers of this Society for the year 1926 are: president, Dr. E. F. Sladek; vice president, Dr. F. G. Swartz; secretary-treasurer, Dr. G. A. Holliday; medico-legal council, Dr. L. Swanton.

The year 1925 was one of the most successful of our society, and we are looking forward for even better meetings this coming vear.

G. A. Holliday, Secretary.

TRI COUNTY

Below you will find the Tri-County Medical Society program for the next seven months. Unless further or special notice is given, meetings will be held at Mercy Hospital the last Tuesday of each month with a six o'clock dinner followed by the program.

Note the arrangement of paper, which may be original or a review of the subject by one or more writers. Also note the plan of discussion, in order that you may be prepared to discuss the subject. Discussion by at least one local and one non-resident physician and, of course, as many others as care to enter in.

January 26—Peritonitis acute, Dr. Moore; discussion, Drs. Gruber and Brooks.

February 23—Prevention of Insanity, Dr. Neihardt; discussion, Drs. C. E. Miller and Babcock.

March—Noon luncheon with Cadillac Exchange club at McKinnon hotel. Subject: Physical Examination as per Minimum Program, blanks, charts; discussed by all doctors present.

April 27—Ectopic Pregnancy, Dr. Smith; discussion, Drs. Wardell and Doudna.

May 25—Sinusitis and Its Relation to Disease of the Intestinal Tract, Dr. Ricker; discussion, Drs. G. D. Miller and McManus.

June 29—Goitre, Dr. G. D. Miller; discussion, Drs. Carrow and Fairbanks.

July—Annual picnic with dentists, time and place later.

Note: Always come prepared to enter into the discussions; also please notify me in time for table service. There will always be interesting hospital reports, exhibition of patients and a good time for all.

Yours truly,
S. C. Moore, Secretary.

HOUGHTON COUNTY

The Houghton County Medical Society held its regular monthly meeting Tuesday, February 2nd, at the Miscowaubik Club, Calumet, with eight members present. After the reading of the minutes and allowing of bills, an advertising scheme submitted by the Mining Gazette regarding collection of bad accounts was laid on the table for consideration at the next regular meeting. The matter of the minimum program for county societies was taken up and as there was such a small attendance it was also laid over until the next meeting.

Dr. G. C. Stewart read a paper on "Parasitic Origin of Carcinoma." This paper was a resume of re-prints and work which has been done by Drs. Glover and J. W. Amy of New York City, and Dr. Scott of Butte, Montana, and Drs. Julian Loudan and J. M. MacCormick of St. Michael's Hospital, Toronto, Canada. Dr. Stewart took up the different theories as to the etiology of carcinoma especially covering the Parasitic Theory as given by the work done by the above named physicians. The results obtained are certainly encouraging and the work being done is no doubt eventually leading to an absolute cause and possible cure for carcinoma. This paper was very fully discussed by all present.

The Society then adjourned to lunch.

G. C. Stewart, M. D., Secretary.

ALPENA COUNTY

The regular meeting of the Alpena Medical Society was held January 21 at the Alpena House, Doctors Cameron and McDaniels entertaining at dinnenr.

Members present were: Doctors Bell, Bertram, Newton, O'Donnell, Burkholder, McDaniels, Cameron, Purdy, Sahs and Secrist.

Dr. Newton, Chairman of the program for the evening, then introduced the speakers. Dr. Bell, President of the Society, gave his inaugural address, in which he presented the various features of health examination and urged that these examinations be featured during the coming year. Dr. D. A. Cameron gave a reminiscent address centering on the changes which have occurred in the practice of medicine during the period of his active practice.

The regular monthly meeting of the Alpena Medical Society was held at the Alpena House Thursday, February 18 at noon. The members of the clergy of the City of Alpena were our guests on this occasion and had charge of the program. The principal address was made by the Rev. Julian West, who spoke of the need of spiritual reinforcement in the care of the sick. It was generally agreed that the co-operation between the clergy and the physicians would result in the physical improvement of the patient.

C. M. Williams, M. D., Secretary.

PROVISIONAL PROGRAM ALPENA MEDICAL SOCIETY

Date	Entertain	Chairman	Program
Jan. 21 Alpena House	Cameron McDaniels	Newton	McDaniels Bell Cameron
Feb. 18	Each member for one Minister	O'Donnell	West Gatzke
Mar. 17	Secrist Arscott	McKinnon	Foley Burkholder
April 15	Each member for one Dentist	Bell	Newton Williams
May 20 Harrisville	Miller Lister	Miller	Bay Co. Med Soc.
June 17	Sahs Burkholder	Burkholder	Secrist Purdy
July 15	Bell Jackson	Purdy	Sault Ste Marie or Saginanw Med. Soc.
Aug 15 Atlanta	McKinnon Purdy	Foley	O'Donnell Purdy Bertram
Sept. 16	Bertram O'Donnell	Cameron	Flint or Cheboygan Soc.
Oct. 21	Lawyers	Canfield	Hinks
Nov. 18	Foley Newton	McDaniels	McKinnon Sahs
Dec. 16 Annual Meeting	Williams Eakins	Williams	Miller Outside Speaker

In addition to the above at least three medical meetings are to be held, to include picnic, social sessions, post-graduate medical conferences and special meetings addressed by outside speakers as oportunity offers.

The duty of the Chairman of the meeting is to notify the Secretary one week before meeting time, of the time, place of the meeting, subject of papers and to preside at the program.

ST. CLAIR COUNTY

A regular meeting of the St. Clair County Medical Society was held at the Hotel Harrington, Thursday, February 4, 1926.

Supper was served at 6:30 p. m., and at its conclusion a short business session preceded the program of the evening which was a symposium of diseases of the blood and spleen. Dr. Theo. Heavenrich discussed splenic anemia and Banti's disease. Dr. J. A. Attridge talked on myelogenous leukemia and Dr. M. E. Bovee reported a case of lymphatic leukemia. Mr. Samuel Etris demonstrated the laboratory blood pictures by reporting the findings in cases of anemia and leukemia and presented microscopical slides of stained blood in each condition. The general discussion was opened by Dr. A. J. MacKenzie followed by almost all of the members in attendance. Dr. J. J. Moffett, President of the Society expressed his satisfaction in the success of the program of the evening and promised similar future programs. Twenty members of the society were in attendance and one visitor, Dr. M. R. McGarvey, who has recently begun the practice of medicine in Port Huron.

I herewith submit report of a meeting of this Society as required by the minimum program of the State Society.

A regular meeting of the St. Clair County Medical Society was held Thursday, February 18, 1926 at the Hotel Harrington, Port Huron, Michigan. Following the usual supper and social hour the meeting was caleld to order by President J. J. Moffett. The regular order of business was suspended and the president introduced Dr. J. J. Moore of Chicago, the speaker of the evening. Dr. Moore is Secretary of the Section on Pathology of the American Medical Association and was formerly associated in the department of pathology of the University of Illinois.

In his address Dr. Moore discussed basal metabolism, laying especial emphasis upon the technic and stating that the make of the instrument was not of such importance as the temperament of the operator. He advised care and patience in making the estimation so as to obtain a true rate. Dr. Moore then talked on the Wassermann Test, stating that unless this test was done properly it would have but little or no value. He said that a long period of training was needed before a technician became proficient. The speaker then took up the subject of tissue diagnosis and spoke briefly of three tissues which were difficult of diagnosis for even the best pathologists. The three being lymphatic, typhoid and bone tissues. He stressed the point that the clinician should submit all possible history to the pathologist at the time the tissue was submitted for diagnosis. The concluding subject taken up by Dr. Moore was the Graham method of gall bladder visualization and this subject was made more interesting by the submission of a dozen or more lantern slides illustrating the appearance of gall bladders after being filled with the dye. The subjects of the speaker brought forth a very interesting and profitable discussion among the members of the Society after which the discussion was closed by Dr. Moore in the usual manner. The evening was thoroughly enjoyed by all the members present.

G. M. Kesl, Secretary-Treasurer.

IONIA-MONTCALM COUNTY

The February meeting of Ionia-Montcalm Medical Society was held at the Reed Inn, Ionia, Thursday evening, February 11, 22 members being present to enjoy the banquet which was served at 7:30 o'clock.

After the banquet, Miss Cavany, Public Health Nurse of Montcalm County, made a few remarks

and asked for definite instructions from the Medical Society in regard to some of the problems which she meets in her work. This matter was referred to a committee composed of Dr. Lilly of Stanton and Dr. Fralick of Greenville.

Dr. F. J. Larned, Grand Rapids, gave an instructive talk, illustrated with skiagraphs, on "Enlarged Thymus in Infancy." Owing to recent observations, many of the ideas concerning this condition have had to be changed.

Dr. Jas. S. Brotherhood, Grand Rapids, gave a paper on the symptoms, diagnosis and treatment of pernicious anemia. He demonstrated the invaluable aid of a complete blood examination in arriving at the diagnosis.

Both papers were well given and were discussed by those present and a vote of thanks was extended to Doctors Larned and Brotherhood.

H. M. Maynard, Secretary.

OUR NATIONAL DOCTOR'S BILL THE PUBLIC'S DEBT

A cursory survey of the gratuitous service given by physicians through medical institutions in the Greater City of New York, based upon the number of "free hospital days" aggregates $16,000,000 annually.

This figure by no means indicates the total bill that the city-controlled and private hospitals would have to pay if the doctor, like other professional men, demanded and received payment for each and every service performed.

It is based upon returns from but 107 of the 140 odd medical and surgical serving institutions giving some portion of charity service.

Evaluating the physician's service nationally upon the hypothesis that outside New York City but a pro rata service in quantity is given equal to 50 per cent, and assuming that each "Hospital Days" service was paid for at the rate of $3.00 per day, the nation's bill due the doctor would be more than $135,000,000 annually.

A survey made within the City of New York (by no means complete because many of the hospitals had not their figures at hand for this quick computation) shows the following:

Institutions in New York are roughly grouped into five classes:

Group one and two are the city-controlled hospitals—those operated and maintained by the city government—and are composed of fifteen institutions, ten of which are under the management of the Department of Public Welfare; the others, known as Bellevue and Allied hospitals, include five institutions.

The third group are those supported in part by the Catholic charities, of which there are twenty-two institutions. The fourth group is the United Hospital Fund group, which is financed annually, partly through drives, representing fifty-six institutions. The Independent Hospitals into which class are gathered all those institutions not included in the above four groups compose the fifth group. There are forty odd institutions in this latter group, of which number fourteen have made returns for the purposes of this survey, the other four groups being complete in their returns.

These groups show the following:

Department of Public Welfare group	(10 hospitals)	1,879,871	free days
Bellevue and Allied Hospitals	(5 ")	859,232	" "
Total City-controlled hospitals		2,739,103	" "
Catholic group	(22 ")	322,610	" "
United Hospital Fund group	(56 ")	1,563,658	" "
Independents	(14 ")	395,131	" "
Total	107 "	5,020,502	" "

The total displayed above, 5,020,502 "free hospital days" represented the number of free days service given to free charity patients in the city's hospitals in a year.

Going a step further, it is no exaggeration to say that each patient is visited at least three times in each "hospital day" by a physician who receives no compensation whatsoever.

If we compute each visit of the physician as being worth a dollar, we find that the bill would be $15,061,506 per annum.

This includes the services of the consulting and outside attending physicians and surgeons, together with the services of the internes, but it is all medical or surgical service.

In taking three dollars as the equivalent of service of the consulting, attending and interne physicians, we feel we are placing the compensation at a price so far below normal for the compensation for a similar service outside the institutions as to prevent criticism or cavil of any kind.

For, when it is considered that these include the best medical and surgical brains in the country, the most expert men in the profession, who, in some instances are known to charge fees as high as $5,000 for an operation, and others who charge as low as $25 for a consultation, and then again those who charge no more than $3 per visit to outside patients, we feel that we have been almost unfair in the computation of the doctor's bill; but we will let it stand at that figure to show the prodigious sum that annually would be due the doctor if, as I have stated before, he demanded and secured even this small measure of pay for his services in public institutions.

As New York City represents about one eighteenth of the total population of the United States, the national bill would, therefore, be eighteen times that of the City of New York, but we will not use that figure, because it might be argued by some that the measure of service given throughout the rest of the country is not in the same proportion either in quantity or quality.

Then, there are those who may even claim that the service outside Greater New York by physicians, through similar institutions, is greater proportionately both as to quantity and value.

The figure arrived at here is not intended as one of discourtesy to any city or section in any of the states, it is merely taken to arrive at an evaluation of the national service of the physician—as a basis, if you please, for a more thorough evaluation of his services, and with the hope that a national census may be taken which will be thorough, complete and satisfying.

Therefore we will set down as our premise that the balance of the country gives pro rata a service of but 50 per cent of that given by the City of New York. This abnormally low computation shows that the physicians national bill would total $135,553,554.

If we place the total number of registered physicians at 165,000 nationally and divide this into the figures above attained, we find that each and every physician in the United States should be credited with $821.

Of course, every physician is not connected with a hospital or similar institution giving gratuitous

service to the poor, and this figure is attained, therefore, by making a spread of the entire bill over the 165,000 registered physicians.

Then, again, it must be remembered that this sum does not in any sense measure the free service of which no accounting ever has been made or ever can be made—of the charity or free service that the physicians give to the poor whom they meet in their daily practice.

Just what this bill would amount to, God only knows, because the physician never keeps account of it, and if you happen to mention it to him he will laugh it off, saying, "Oh, that's for the good ot the service—for the good of mankind."

But there is another element that enters into this question of service, for which the physician never is paid, and this is the most baneful element, the unpaid bills of those who are well able financially to meet their obligations to their physician.

Every family doctor has a number of these every year upon his books, and if the facts and figures were recorded, of the money lost to the physicians in this way, it would stagger one and give to each a twinge of conscience.

And when one considers that the measure of the physician's service is intimate, personal and means relieving the individual of pain, suffering, the saving of a limb, aye, the saving of a life perhaps, this negligence takes on an aspect that is indescribable.

With this situation well in mind, can there be any question as to why so many physicians eke out meagre existences, and that many—the majority—die without estate, and that many become public charges because of financial distress?

And with the costs of living rising like the tides, is it any wonder that so many of them are engulfed and have to enter almshouses, or that those capable of it have to seek employment in other lines in order to maintain themselves decently?

Again, there is an aspect to the situation which presents a problem that never can or will be solved in the approach that is being made to solve problems of similar kind these days; that is the problem of the man of pure science—the man who devotes himself to the science of medicine and employs his time digging and delving in the laboratory to seek some panacea for the existent ailments of life, or who, built in more heroic mould, submits himself to the torture of disease through inoculation, that he may record the symptoms, and that his brother physicians may record the progress of disease in him, so that mankind may be benefited as the result of his sacrifices and studies.

To evaluate this service of the physician is something beyond the power of figures, or dollars or cents, because there is the jeopardy of life always, and who can say as to the value of a life given in this manner?

The next element is that of the man who through pure service to the public is stricken down, who has to leave his bed at the call of the patient at unseemly hours; who answers call after call in this manner, totally uamindful of his own physical well-being, knowing only that some one is suffering and that his duty is to relieve that suffering. When this man becomes aged, penniless and is incapaciated from going the daily round of the old family doctor, should there not be some place to which he may go; some place to which his eyes may turn in hope and solace?

And then as to the good wife, who has shared his burden through life, and whose warnings and entreaties have fallen upon deaf ears, the only call being heard being that of service,—what is to become of her? Is she to be sent to the poor-house over one hill, and he to be sent to another over the other hill, and thus these twain parted at a time of life when the affectionate companionship of years should solace their few remaining days,

Is this to be their lot?

What is to become of the vaunted ethics, the service and the pride of the medical profession if this is permitted?

To take care of one's own is a natural impulse; to take care of others is called charity, but to take care of those who sacrifice their health, their strength, their years, their service, in behalf of the public or in behalf of their profession—this calls not for charity, it is a call to duty.

Today there is reported a dearth of physicians throughout the country. There are hundreds of communities where one doctor has to serve many such.

The poor compensation, bad debts, unseemly hours, the personal hazards to health, limb and life do not compensate a physician these days as against other professions, so doctors are becoming fewer proportionately in the rural districts.

And this is no wonder, because according to the American Medical Association, from figures printed sometime ago, $1,000 was the average earnings of a doctor.

And, of course, it is beyond question as to a man being able to support himself, and make his daily rounds on such a basis of compensation—much less to maintain a horse and carriage or an automobile, and a family and a home thereon.

All these problems have been revolving in the minds of certain forward-looking physicians for several years, with the result that a little experiment, or adventure, was begun up in the hills of Caneadea, New York, where there was established a trail unit of a home for aged and superannuated or ailing physicians and their wives. For four years this institution has been doing its mission of mercy and love, and now the calls upon it are so heavy that it seems due the medical profesion to found a home, national in scope and service; a place where tranquility will be theirs during their last few years of life.

And as planned by these physicians, it serves a double mercy that it does not separate the physician from his good wife and life partner at this crucial time in their existence. Provision is made for both at the home, and the fact that it has worked out successfully adds flowers to the benison.

That this national home had not been thought of before, nor had not been actually started before, is due to the difference of the profession in its personal affairs—it did not wish to lay bare to the public scrutiny that so many within the profession are needy, or may be in actual want.

But when the facts were laid before some of our leading and far-seeing citizens the reply was instant that something must be done, and that they would sponsor the movement to raise funds for the national home.

Here are gathered a few of the words of encouragement and God-speed, which have created this enterprise, from the pens of leading citizens.

If after reading them you feel that you would like to help in this great movement by your personal gift, please forward the same by check, drawn to the order of the Physicians' Home, Inc., and mail it to Dr. Albert G. Weed, Treasurer, 22nd floor, Times Building, Broadway and 42nd Street, New York City.

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Original Articles

TUBERCULOSIS OF THE KIDNEY, ITS DIAGNOSIS AND TREATMENT —WITH LANTERN SLIDES

HUGH. H. YOUNG, M. D.
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BALTIMORE, MARYLAND

It is a very great pleasure indeed to come before this body. This is the first time I have had the honor of coming to Michigan, and I assure you, having heard so much of what you have done in your splendidly active society, I feel it is a very great honor to be with you.

They have given me a very difficult subject. I was not allowed to choose my subject, I may say, and I am afraid what I have to cover will be rather too much for thirty minutes.

The question of renal tuberculosis, I think, is one of the most interesting that the internist has to deal with, particularly owing to the fact that the symptoms are often so insidious and do not refer at all to the upper regions of the abdomen in which the disease is really located.

The early diagnosis is often extremely difficult. In a recent study of cases that we have made, we found that about 40 per cent of them showed definite evidence of a previous lung or pleural history; in many cases the lesion had long since disappeared before they came to operation for the kidney, but there was evidence that there had been, from the history and from the X-ray findings, a tuberculous lesion in the lungs or pleura in about 40 per cent of the cases.

It is only rarely, or comparatively rarely, that you find an uncomplicated case of tuberculosis of the kidney. Unfortunately, it travels down the ureter and involves it early; the bladder becomes involved in about 40 per cent of the cases eventually; and the lower genito-urinary tract, particularly the prostate, seminal vesicles, and epididymes, become involved in a surprisingly large number of cases. In about 26 per cent of our cases there was involvement of the genital tract.

A few years ago I happened to spend a summer in Colorado, and I took advantage of the fact that I was close to a number of great tubercular sanatoria to look over their records. I found that they had rarely genito-urinary tuberculosis. In some 10,000 cases that I was able to go over, I found only 65 definite cases of genito-urinary tuberculosis, and most of those were tuberculosis of the seminal tract rather than tuberculosis of the kidney. I don't believe, however, that this record is at all accurate, because I think surgeons keep the genito-urinary cases at home for operation instead of sending them out to regions like Colorado for simple climatic treatment.

Of those 65 cases, the seminal tract was involved in 50 and the kidneys in 17. Although involvement of the genito-urinary tract was rare among the records in the great sanatoria of the west, it was the most fatal complication they had. Whereas their ultimate arrestation of the disease was said to be about 68 per cent of the cases, when cases had genito-urinary tuberculosis of any form the mortality rate immediately jumped up to 80 per cent and probably higher. Those records showed that involvement of the genito-urinary tract makes tuberculosis of the lungs infinitely more dangerous than when other regions are involved, such as the bones.

I have made it a point to go over the histories of all the cases that we have had in my service at Johns Hopkins, and there are 342 cases of urogenital tuberculosis. The family history was positive in 70 cases, negative in 219, showing that family history does not count for very much. There was history of injury in 12: To testes, in six; instrumental, one; to the body, five. This might account for renal tuberculosis.

History pointing to pulmonary tuberculosis, among that series, 66. History pointing to bone tuberculosis, 27. History

pointing to gland tuberculosis, seven. Persistent sinuses and fistula, post-operative, 55.

The first symptom noted, which is an extremely important thing to medical men, and the most common symptom in renal tuberculosis, was frequency of urination, 84 cases; swelling of the scrotum, 62; dysuria, 49, which would be coupled with frequency, of course; hematuria, 32; pain in the testicle, 26; diffuse renal pain, 24, this being very rare; renal colic even more rare—19; pyuria, 16; pain in the perineum, eight; swelling in the perineum, six. As you see, the urinary symptoms were by far the most common, that is frequency of urination, dysuria, discomfort and irritability in the blader.

These are the symptoms that the patients presented as they came to the hospital. Here again I think you will be struck with the fact that the urinary symptoms far outweigh almost everything else. Mind you, most of the cases were renal. Frequency of urination, 236 cases; hematuria, 177 cases; painful urination, 172; swelling of the scrotum, 143; pyuria, 119; diffuse renal pain, 84; renal colic, 43. So out of this great number you see there was rarely much pain in the region of the kidney. Pain in the testicle, 74; pain referred to the penis, 32; passage or calculi, 10. If you include frequency of urination and painful urination together, you get a great preponderance of micturition symptoms in genito-urinary tuberculosis.

I may briefly go over the lesions. This is a drawing made of one of our early cases of renal tuberculosis. There is only one portion of the kidney involved. There is an erosion of the calices in the upper portion of the kidney. That looks like an extremely early thing, yet this individual had had tuberculosis of the kidney, to my certain knowledge, at least six years, and it had only progressed this far in that length of ime. He had had a ureter catheterization at which tubercle bacilli had been found from that kidney six and a half years before, and yet at operation a lesion of only that small size was found.

Here is a more extensive case in which the pelvis is more involved. There is a large erosion with destruction of a portion of the kidney.

Here is a still further advanced case where there is hydronephrosis of a portion and great caseation of other parts of the kidney, with lobulation of the outside.

Here is a still more advanced case in which there is seen what is known as an autonephrectomy, in which the ureter becomes blocked and the whole process takes care of itself as long as it remains encapsulated.

A kidney of that sort need not be removed, as it generally gives no trouble.

Here is a pylogram of a case in which there is erosion of the upper calices. The rest of the pelvis is fairly normal.

This is an early tuberculosis of the upper portion of the kidney, and this is a fairly early tuberculosis of the middle and lower portion of the kidney.

This is a rather extensive destruction of the entire kidney.

Here is another case in which there are tuberculous pockets, strictures of the ureter with marked dilations in between.

This is the case of which you saw a drawing, so-called autonephrectomy of the tuberculous type. The whole kidney is caseous, and there is enough calcareous salt in it to throw a shadow. A case like that, particularly if the patient is in feeble condition, ought not to be operated on, as a rule.

A lesion that we have found several times, which is a very interesting one and which has not been described except in a short article, is this: Not infrequently in tuberculosis of the kidney there is marked involvement of the ureter, and along with that shortening of the ureter, and not infreqently adhesions to the diaphragm from perinephric infiltration. In this case, on cystoscopy we found this hypertrophied trigone. We also found the right ureter there without difficulty. The left ureter we could not find, but while watching the left corner of the trigone we suddenly saw that the ureteral ridge simply passed up and down like a piston rod through a greatly dilated ureteral orifice. We then began to time it, and we found that the upward passage of this corresponded exactly to the upward passage of the diaphragm; when the patient took an inspiration, the diaphragm and the ureteral ridge came down together, so there was a piston rod action back and forth, due to the fact that the ureter was shortened and thickened, the trigone was hypertrophied, and it was pulled up and down by the motion of the diaphragm.

In several other cases we found that this shortening and thickening of the trigone and ureteral ridge led to pouches in front and behind. In those pouches tuberculous material collected and was not emptied at micturition. That led to ulceration, and in two cases the whole trigone was completely undermined and formed a bridge with three points of attachment, one at each ureter and the third point at the urethra.

In two cases we went in and removed the entire trigone, one of them suprapubically, and in the other we fulgurated the three

points and pulled the trigone out through the urinary meatus with our cystoscopic rongeur.

It is rather interesting, also, that after removing the trigone the patient had difficulty in urination, evidenly due to the fact that we had removed the muscle which opened the internal sphincter, but his condition was much better for removal of this foreign body.

In the examination of these cases, it is very important to remember the history. In the great majority of cases of renal tuberculosis there are no actual symptoms referable to the kidney itself. In many cases the patient comes complaining of irritability of the bladder, frequency of urination, dysuria, or a little pain often in the urethra and not infrequently at the head of the penis. In these cases the phthalein test is usually normal, owing to the fact that the other kidney has hypertrophied and made up for the destruction of the kidney which is involved. The general phthalein test will often not tell you anything at all.

When you do a ureteral catheterization and collect the urine separately, your phthalein test is of very great value and of very great accuracy.

I have made sketches here of several tuberculous kidneys that have been removed, and have put down the amount of phthalein test from the two sides. Here is a patient in which from the left kidney the phthalein test showed 22 per cent in 30 minutes, from the right kidney only 11 per cent in 30 minutes. The kidney was removed; the upper half was involved, showing that it measures up quite accurately with the phthalein test.

Here is another case in which before operation there was 35 per cent on one side and 12 per cent on the other. At operation the specimen removed showed the upper half of the kidney destroyed by tuberculous pyonephrosis.

Here is another case in which there was 50 per cent phthalein the first half hour on this side, a very considerable increase, and from this side there was only a trace. At operation we found only a small portion of the lower pole of the kidney uninvolved, corresponding, therefore, very accurately with the phthalein test.

The next case is one in which no phthalein was found on this side, and on the opposite side an increased amount—35 per cent for half an hour, at operation the entire kidney was found to be destroyed by tuberculosis.

These are shown you to demonstrate how very accurate the phthalein test is in showing the amount of kidney that is involved.

In a study of these cases, it was interesting to see the combination of tuberculosis that we found. Table 1 shows the distribution of tuberculosis in the seminal tract. The right kidney was involved alone seven times, with the bladder 31 times, with the bladder and prostate five times, with the bladder, prostate and seminal vesicles, 17 times, with the bladder, prostate, seminal vesicles and epididymes six times, with the bladder, prostate and epididymes three times. With the left kidney practically the same thing held, so the kidney was involved alone in a comparatively small number of cases. The problem, therefore, is not, by any means, simply renal tuberculosis. I think surgeons have had the idea that the disease is far more simple than is really the case. These statistics show how you always have to consider nearly every case of renal tuberculosis a possible involvement of the entire urogenital tract.

TABLE I

DISTRIBUTION URINARY T. B. IN RELATION TO T. B. OF SEM. TRACT.

	Alone	With Blad.	Blad. and Prost.	Blad. Prost. and S. V.	Blad. Prost. S. V. and Epid.	Blad. S. V. and Epid.	Blad and Epid.	Blad. Prost. and Epid.	Total
Rt. Kid.	7	31	5	17	26	2	6	3	97
Lft. Kid.	3	23	8	10	23	5	4	0	76
Bilat. Kid.	0	7	1	4	15	3	1	1	32
Total	10	61	14	31	64	10	11	4	205

With Lung Involvement 60

With Urethral Involvement 4

There were also 6 Cases of Blad. T. B. in which a Renal Lesion was not demonstrated.

TABLE II

DISTRIBUTION OF TUBERCULOSIS IN THE GENITAL TRACT. A EPIDIDYMES & SEMINAL VESICLES, 222 CASES

Genital Cases with Kidney Involvement	114
Genital Cases with Doubtful Kidney Involvement	8
Genital Cases without Kidney Involvement	100
Epididymes Involved in	175
Seminal Vesicles Involved in	185
Epididymes Alone (Lesion in Prost. or S.V. not Recognized)	37
Epididymes and Seminal Visicles Combined	138
Seminal Vesicles Alone	47

In this Table 2 showing distribution of tuberculosis in the genital tract, where the epididymes and seminal vesicle were involved in 222 cases, the genital cases with kidney involvement were 114, genital cases with doubtful kidney involvement eight, genital cases without involvement 100. Out of the 222 cases in which the genital tract was involved, in only 100 were the kidneys uninvolved, showing again the marked interrelationship in the disease. The epididymes were involved in 175, the seminal vesicles in 185. That will probably surprise

a great many, because I think the impression is quite prevalent that epididymal tuberculosis is far more common than seminal. A study of our cases shows conclusively that seminal vesicle and prostate tuberculosis is more common than epididymal tuberculosis.

The epididymes were involved alone in 37 cases, whereas the seminal vesicles were involved alone in 47, showing that epididymal tuberculosis alone is the rarest of all forms of genito-urinary tuberculosis.

TABLE III

DISTRIBUTION OF TUBERCULOSIS IN GENITAL TRACT. B. TESTS—PROSTATE, 191 CASES

Prostate Cases with Kidney Involvement	105
Prostate Cases without Kidney Involvement	86
Prostate Cases with other Genital Involvement	171
Prostate Cases without other Genital Involvement	26

Testes Cases with Kidney Involvement 7; without 12, Total 19, which is 8 1-3% of Genital Cases.
In the 242 Cases in both Tables, Pulmonary T.B. was noted in 67 (27%).

This Table 3 shows the distribution of tuberculosis in the genital tract where the testes and prostate were involved, 191 cases. Prostate cases with kidney involvement, 105; without, 86, showing again the very marked interrelation between genital and renal tuberculosis.

In the diagnosis we must remember in these cases that even where the kidney alone is involved, the symptoms are often entirely micturition symptoms, frequently of urination, irritability, dysuria, pain, and hematuria.

It is only in the rarest cases that you get kidney colic, and not often that you get definite renal pain, and then late in the disease, as a rule.

Whenever a patient who is not a prostate case, that is under 50 years of age, comes in complaining of frequency and irritability, think at once of the possibility of the case being one of renal tuberculosis. (See Table 4).

TABLE IV

SYMPTOMS OF UROGENITAL TUBERCULOSIS IN 342 CASES

Frequency of Urination	236
Hematuria*	177
Painful Urination	172
Scrotal Swelling	143
Pyuria*	119
Diffuse Renal Pain	84
Pain in Testicle	74
Renal Colic	43
Pain Referred to Penis	32
Passage of Calculi	10

*Includes only those cases where noted by PT. before examination.

In cystoscoping those cases, in a great many you will find nothing at all in the bladder. The bladder mucosa will look perfectly normal; there will be no residual urine, there will be nothing to account for the frequency of urination. I think it is probably due to toxins and irritability produced in the urine by the tuberculosis process above. In about 40 per cent of the cases we found definite cystitis or even ulcerations of the bladder to account for the frequency and dysuria.

Blood is an extremely important thing. (See Table 4). Hematuria in a patient apparently sound, even occurring very rarely, should be investigated at once. I know of several cases who only had one attack of hematuria, in whom when they finally came months afterward for examination, there was a very extensive destruction of the kidney. I can't impress upon you general practitioners too greatly the importance of hematuria in the diagnosis of renal tuberculosis. Be suspicious of the possibility of renal tuberculosis in cases with no other symptoms whatever.

I want also to lay great stress upon a very careful examination of the epididymes, the vasa efferentia, and the rectal examination of the prostate and seminal vesicles. Of course, all of those regions may be involved as the result of an old gonorrheal process, and when you find the testicle involved it may be a case of syphilis. But if there is no history of gonorrhea, or no history of a long continued prostatic trouble or sexual truble after gonorrhea, please be very suspicious of induration and nodularity that you find in the epididymes and seminal vesicles and prostate.

Remember that no physical examination is complete without a rectal examination. Dr. Osler used to say, I think very wisely, that the difference between a good doctor and a poor doctor was that a good doctor knew how to make a rectal examination. Coming from an internal medical man, I think that speaks very forcibly. Certainly there are all sorts of hidden lesions that are brought out by rectal examinations, which make it certain that they should be included as a part of every physical examination.

After having made your diagnosis, (which usually requires various studies: examination of the urine bacteriologically, an X-ray that will show you possibly a kidney that is enlarged and irregular and sometimes with areas of infiltration in it, cystoscopy ureter catheterization, with a study of the urine and a phthalein test from each side, a pylogram showing erosion, etc., and all those special procedures that I have not time to dwell upon) and you have demonstrated tuberculosis of the kidney, the next thing to be sure of is whether you have tuberculosis of another part of the genito-urinary tract.

As I have already pointed out, the prostate, seminal vesicles, epididymes, and the

bladder are involved in a very large per cent of the cases, and the internist and the surgeon must make up their minds as to which part to attack first. In some cases it is better to go in and operate upon the kidney and remove the focus of infection that is constantly infecting the part below, and later operate upon the lower lesions. If, on the other hand, there is very marked dysuria, pain, obstruction to urination, in some cases it is better to remove the tuberculous lateral portions of the prostate, the seminal vesicles, and the epididymes, and carry out nephrectomy afterwards. We have treated these combined cases in both ways.

Nephrectomy can almost always be done through a curved low incision, extraperitoneally. When the ureter is exposed we think it is very important to inject pure carbolic into it to destroy as much as possible the tuberculous process in the mucous membrane and to sterilize the interior. We are not partisans of removing the entire ureter. We have done that in a few cases and have felt sorry for it in several. Owing to the fact that the whole ureter cannot possibly be removed, the last inch of it always remains, and it is a dangerous thing to have that last inch of the ureter, which is tuberculous, draining into a very deep, fresh, poorly draining wound, instead of being brought near to the surface in a fibrous tube, the ureter. We almost never remove the ureter unless it is a great big hydronephrotic ureter. We inject carbolic, and then we ligate the ureter, doubly, and then take out the kidney.

In the removal of the kidney it is very important, if you can, to pick up your vessels separately and ligate them doubly, using two clamps and removing on the proximal end or stump of the vessel and loosening each clamp as you tie it. We do not believe in mass ligaturing. It certainly is far more dangerous.

We believe strongly that the approach to tuberculous seminal vesicles should be facilitated by using a long urethral tractor to bring them up. Having exposed the prostate without opening the urethra, the tractor pulling down the prostate and the seminal vesicles, all that is encessary is to go through the fascia covering them to expose the entire region. The lateral lobes of the prostate are generally tuberculous and should be removed. You simply enucleate the two lateral lobes without going into the urethra, and remove both seminal vesicles, even though only one seems to be involved.

This is done by the technic shown in these slides clamping the lower end of the vasa and removing the ampulla, leaving the clamps on as is shown diagramatically here, just below where it passes around the ureter. The two seminal vesicles, the vasa deferentia, the two enucleated lobes of the prostate (the urethra and ejaculatory lobes being left intact) are thus removed through the perineum. The epididymes is exposed thus, and as the testicle is very rarely involved, simply remove the epididymes from the testicle, being careful to preserve the veins. Then having freed the epididymus and vas externally, by simple traction back and forth upon the vas itself externally, and the clamp upon its lower end in the perineal wound, the whole vas is freed, the clamp released, and the entire vas pulled out.

TABLE V

EPIDIDYMECTOMY. NO URINARY INVOLVEMENT; UNILATERAL. 38 CASES

Well .....5; Improved .....2; Unimproved	3	
Alive with Recurrence in Opposite Epididymis	14	
Subsequent Operations — Epididymectomy 10, Radical Operation	2	
Alive with Recurrence in Kidney	3	
Nephrectomy	3	
Alive with Nephrectotomy	3	
Well	3	
Dead, Recurrence	11	(29%)
Epididymis 1. Kidney 2, Seminal Vesicles 1, Lungs 3, Bones 1.		
Of the 16 Cases classed as Well, 11 requires Operation:		
Nephrectomy 4, Epididymectomy 7, Seminal Vesiculectomy 1.		
Well over 1 year	13	(38%)
Well 5 years	6	(16%)

Table 5 shows the results in cases in which there are no urinary involvement and in which unilateral epididymectomy was carried out in 38 cases. These cases, as you will understand, will be classed as very favorable cases, yet in 26 cases (69 per cent) the opposite epididymis has already become involved, and in six cases the kidney has also become involved. Out of 38 cases only five are classed as well over five years.

I believe the explanation of the poor results obtained here is that the seminal vesicles were surely involved when the operation of epididymectomy was carried out, and that only by radical operation can we expect a larger per cent of cures and to avoid recurrences or spread of the disease to the opposite epididymis and to the kidney.

TABLE 6

REMOVAL BOTH SEMINAL VESICLES, ONE OR BOTH EPID. 17 CASES

A. Cases with Lung Tuberculosis	6
B. Cases with Renal Tuberculosis	5
C. Cases with Tuberculosis confined to Seminal Tract	9

Total 17 Radical Operation. Dead 3. Well 13.

UNILATERAL RADICAL OPERATION (1 S.V. AND 1 EPID.) 7 CASES

Well 4 Improved 1. Dead 2. (Pulmonary T.B. After Second Epididymectomy)

SUMMARY: RADICAL EXCISION OF SEMINAL TRACT. 24 CASES

Well	13	(54%)
Operative Deaths	1	(4%)
Total Now Dead	5	(20%)

Table 6 shows 17 cases in which both seminal vesicles were removed with one or both epididymes. As seen here, they are very complicated cases, and yet 13 are classed as well. In all, 24 cases, in which the entire seminal tract, seminal vesicles, portion or prostate and one or both epididymes have been removed, are recorded with 54 per cent well and only one operative death.

These cases show, I believe, very conclusively that the seminal vesicles are involved in the majority of cases along with the epididymis and that the radical removal of the entire seminal tract gives much better results than epididymectomy.

TABLE VII

RESULTS OF NEPHRECTOMY FOR TUBERCULOSIS

Total Cases	112	
Well	53	(47.5%)
Improved	24	(21 %)
Uuimproved, Bladder Symptoms Still Present	18	(16 %)
Unimproved, Recurrence in Opposite Kidney	4	(3.5%)
Unimproved, Recurrence in the Epididymis	4	(3.5%)
Total Unimproved	26	(23 %)
Dead of Tuberculosis Since Leaving Hospital	8	(7 %)
Dead, Operative	1	(0.89%)
Total Now Dead	9	(8 %)

Table 7 shows the results of nephrectomy for tuberculosis in 112 consecutive cases. The fact that there was only one death during the entire stay in the hospital shows the operation to be benign. Forty-seven per cent are classed as well, although in 10 cases it was necessary to remove the epididymes or seminal vesicles or both, and many were complicated with some form of lung tuberculosis.

In conclusion, I wish to stress the fact that tuberculosis of the urinary tract is a complex affair, that it is very common to have involvement of both urinary and seminal tracts, that it is not sufficient to remove one focus of infection but, if possible, all, that the treatment should be radical and early for the kidney, seminal vesicles and epididymes, and that by radical operation excellent results can be obtained.

NEW FACTS REGARDING THE FUNCTION OF THE CEREBRAL HEMISPHERES

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It is the irony of Fate, that the organ which has solved many secrets of the universe, the organ which foretells courses of celestial bodies, the organ which has conquered the air, and penetrated into the depths of the earth, the organ which improved and prolonged life, in short, the essence, the source of our progress, the motor of human activities, the controller of our will,—*the human brain,* is so little explored, that it appears to us a terra incognita.

It even discovered its own shortcomings.

The power of vision, for example, is limited; our eye is unable to see small microorganisms, thus the microscope was invented. The eye is unable to penetrate the wonders of the stars; so came the telescope. We could not see through skin and muscle, where-upon X-ray was perfected.

The brain achieves astounding results in enabling the small organ of hearing to reach the farthest distances imaginable, by the means of telephone and radio, and in its constant, persistant efforts, the brain ceaselessly functions, conquers and solves one problem after another, unveils the mysteries of nature, explains the riddles of the universe, and yet, having explained the functions of the rest of our body, it knows very little of itself.

We know so far, that the brain is the center where body activities are registered; that it contains various centers, (visual, speech, etc.) that it is capable of storing and recalling experiences, etc., and recently we learned to what purpose its mechanism functions. Our knowledge of this sphere is only the first phase of the vast amount we are to learn about the cerebral hemispheres.

The Psychologist is to be blamed for the slow advancement of our knowledge of the function of the higher nervous activities.

Strangely enough, it so happened that the physiologist allowed the psychologist to handle this branch of knowledge for a long period of time, while the former remained inactive. The only plausible explanation and excuse for the physiologist is that first, he was very busy studying the functions of the body, and second, being in the habit of studying his problems from a purely objective viewpoint, he could not attack the higher nervous centers. These could only be studied subjectively through self-observation. This viewpoint was fallacious and advanced psychologists have recently noted the error associated with introspective method of study. They formed a new school, the aim of which is to study the higher nervous activities (formerly called the psychic activities) from a purely objective stand point. Since they concentrated their efforts on animal behavior, they were known as "Behaviorists."

Thurndike, John Watson, Parker, Yerkes and others are the foremost representatives of the new school in this country.

Simultaneously J. P. Pavlov, and his school at Leningrade, (Russia) began the study of the functions of the higher nervous

activities from a purely anatomic viewpoint, and being physiologists, they immediately placed the problem on the experimental table.

It is chiefly due to this work that we became enlightened upon the function of the brain.

The work on the higher nervous centers has been at a standstill for about 100 years. In the 70's of the 19th century the study of the brain received a strong impetus, and for several years, many new facts were reported, but very little of importance was added.

In studying the functions of the higher divisions of the central nervous system, the same rules have not been followed as in the study of the lower ones.

The proper way would be to watch the effect of changes in the external world upon the animal organism, and then establish laws governing these relations.

It is Pavlov who deserves the credit for attacking the problem from this viewpoint. Having accepted the principle of objective study of the higher nervous activities, it was necessary to find and establish a unit of which the higher nervous activities are composed. He found this unit and called it the Conditioned Reflex. Before we go into the study of Conditioned Reflexes, let us dwell for a while on the subject of instinct which is also regarded as an *inborn* or *unconditioned* reflex.

The life of each living creature rests upon two important principles, one is the principle of nutrition, the other the principal of propagation. Accordingly, each animal is supplied with an inborn mechanism capable of independent function. This mechanism works without previous instruction, and is in a position to take care of itself and provide for posterity. This inborn mechanism is called *instinct*. The instinct is the only helpful mechanism for the animal, without which the creature would undoubtedly perish. As this inborn instinct is unable to improve and remain always the same, and because it works blindly, chances are, that it will not always be helpful in the matter of maintenance of life in the single individual. Nevertheless, no one will deny that it is very essential for the preservation of life *per se*.

There are many examples among animals who lose their lives because of the persistency and blindness of the instinct. For example, the moth perishes because of the instinct of attraction to the glare of fire. Again the mouse is captured in the trap when driven there by the instinct of hunger. However, many animals are saved due to the same instinct. In higher forms of life where the relations of the animal to the external world is more complicated, the inborn instinct left alone is not in the position to keep up and maintain the equilibrium of existence. There is a necessity for a mechanism which is capable of acting on each different occasion varying with the needs and possibilities. Instinct is blind and is unable to accomplish it. And thus we see that in higher forms of life, the brain manages the relation of the individual to the external world. *I venture to say, that the brain probably receives its impetus for development as a result of incompetency and blindness of the inborn instinct.* Life at the present time would be impossible were it not for the intermediation of the brain. The examples are too numerous to be cited. Thus the brain, and especially the hemispheres took over the management of the relation of the individual to the external world. The hemisphere, according to the work of Pavlov, is the place where the conditioned reflexes are formed. Pavlov succeeds in proving it. His experiments were mostly with the salivary glands.

Let us consider some of his experiments and findings. If we, while feeding the dog, each time, for instance, will light an electric bulb and repeat this procedure several times in succession, then, the lighting of the lamp alone, will cause the dog to respond in such a way as if he were fed. We establish thus a reflex which is called conditioned, because it was formed on a certain condition, namely while the dog was fed. It is also called acquired or cerebral reflex in contra distinction to the inborn or spinal reflex. This ability to response on the lighting of the lamp, with a salivation is a finer response of the animal to the external stimulus and is connected with the function of the cortex of the brain.

A proper question presents itself whether or not the conditioned reflexes are indeed a function of the cortex or whether they can be formed through other chanels of the central nervous system without the participation of the hemispheres. Experimental work, however, absolutely proved that the cerebral hemispheres are the sites of formation of the conditioned reflexes. Orbeli in removing certain parts of the cortex in dogs was able to make certain groups of conditioned reflexes disappear from the corresponding receptive apparatus. Thus we see that the conscious forms of life have volved through the conditioned reflexes in the cerebral hemispheres. The rapid development of the cerebral hemispheres in man gives us a hint as to the importance of this portion of the brain. As early as the third embryonic month they cover the thalamus opticus and

in the fourth embryonic month, they cover the corp. quadrigeminae. At the sixth embryonic month a part of the cerebelum is covered; at the end of the eighth month, the cerebral hemispheres reach far behind the cerebellum. In the lowest forms of animals the hemispheres are either absent or slightly developed. The conditioned reflexes, being the finer and the more sensitive function of the central nervous system, help the individual in the complexity of life to adapt himself more properly to the environment and meet the exigencies which may constantly arise.

Capable of being invoked and abolished the conditioned reflexes present to the individual an opportunity for peraenious rebirth, which is essential, to the constant new demands of life.

The two hemispheres are capable of separate function. Krasnogorsky and Anrep of Lenningrad proved experimentally, that after extirpration of one of the hemispheres with time the hemisphere which is left, is able to completely resume the work of the other hemisphere. Rosenthal and Fursikoff confirmed the correctness of this experiment. A characteristic feature of the function of the cerebral hemispheres which reveals itself in teh study of the conditioned reflexes is the phenomonon of irradiation. If a certain stimulation (of stimulative or inhibitary character) is originated in a certain point of the cerebral hemispheres, the stimulation does not remain in the same point but travels over the entire hemispheres; it radiates.

The external stimulus (Metronome) which caused this irradiation over the hemisphere appears at just the time of the formation of the conditioned reflex. So, for instance, if the secretion of the salivary gland is stimulated by a certain number of vibrations of the Metronome, then in the beginning all other acoustical stimulators will also produce salivation of the gland. What does it mean? It means that in the beginning of the formation of the conditioned reflexes the stimulation spreads all over the hemisphere but when repeated several times it centers on one point. It concentrates. Later on, only a certain number of vibrations will be able to cause the stimulation of the salivary gland. The same phenomenon is observed every where, no matter where the stimulus is originated. That this irradiation with subsequent concentration of the stimulus in the cerebral hemispheres is peculiar to it, has been shown by (Minkowsky) of Zurich who found that even human embroys in the first half of their embryonic life show an extraordinary inclination to radiation and generalization in the nervous structure of the hemispheres. These findings are very important because it allows us to conclude, that the manifestation of irradiation and subsequent concentration of the stimulus can be correlated with the fact that the Cortex of the cerebral hemispheres shows in its structure features of foetal tissue as well as tissue of the differentiated type. Minkowsky went farther. Basing his conclusions on exact histologic facts pertaining to the structure and development of th ecortex, found that of the six layers of the cortex, the second and especially the fourth, are nearer to the foetal form while the third, fifth and sixth are representatives of the most differentiated type. He thinks, therefore, that irradiation which is the first stage in the formation of conditioned reflexes travels through the second and fourth granulous layers while the subsequent concentration of the conditioned reflexes occurs in the fifth and sixth infragranular layers and the pyramidal cells of the (especially the third) supragranular layers.

The purpose of making a short excursion into the embryology and histology of the Cortex is to illustrate to you that the formation and conditioned reflexes is not merely a theory. We already know how and where the conditioned reflexes are formed as well as their mode of transmission. I shall return in my conclusions to the practical importance of our knowledge of the formation of conditioned reflexes. Let us, however, turn our attention for a moment to another mechanism of the cerebral hemispheres, namely, the mechanism of *analysis*.

Pavlov's experimental work proved that the function of the cerebral hemispheres consists also of the mechanism of analysis, which analyze the complex of external and internal events into separate elements and moments and then relates the analyzed events with one or another function of the organism. It is analagous to the splitting of protein into amino-acids in the gastro-intestinal tract and the reformation of new proteins suitable for assimilation. Each analyzer is a complicated nervous mechanism which begins with a receiving aparatus and ends in the cells of the brain. (e. g. Eye, ear, etc.) The fundamental physiologic principle of an analyzer is that each peripheral apparatus is a special transformer of the given external energy into a nervous process.

It is possible that in the future some other important functions of the cerebral hemispheres may be discovered. It is, however, firmly established, that we are in the fortunate position of being able to study the higher nervous activities in as precise a manner as we study the function of muscle fibre. We have advanced so far, that we are able to detach ourselves from the introspective

method of study of the so-called psychic activities and accept an *objective scientific* modus which is called the study of the functions of the higher nervous activities. The outlook is very encouraging. No one can foretell all the practical advantages that can be derived from the knowledge of the mechanism of the higher nervous functions. Ancient men, while rubbing a stag's horn on a piece of hide, which gave a spark, suspected little that this spark would develop, with time, into electricity, telegraph, telephone and cinema, nor did the astronomer suspect that watching the stars would help to discover, for instance, America. Nor did we ever dream that we would harness picturesque waterfalls to the service of civilization and progress. The knowledge of the function of the brain, this highest of the higher mechanisms, opens for us unlimited possibilities and prospects not only in the field of psychiatry and criminology, but also in the field of every-day life can we say that we already learned to understand objectively each other.

Is not the lack of our proper understanding of each other a hindrance to universal happiness? Do we not try always to learn all we can about the object we aim to control? And is it not our most important duty to ourselves and to the world to learn about the most important mechanism of our body, the organ which controls us? And what wonderful prospects, what great achievements we may expect when we learn to control the center and main mechanism of our mental activities.

BREAST TUMORS; THEIR DIAGNOSIS AND TREATMENT*

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GENERAL DIAGNOSTIC CONSIDERATIONS

In the diagnosis of tumors of the breast, the principal consideration will of necessity be, is the tumor benign or is it malignant? For obvious reasons, it is of vital importance, when possible, to decide this question before any operative procedure is undertaken. In an examination to determine whether or not a mammary neoplasm is malignant, the following factors deserve careful consideration:

(1) The age and history of the patient;
(2) The length of time the tumor has been growing;
(3) The rapidity of growth at different times;
(4) The presence or absence of pain;
(5) The effect upon general health, etc.

*From the Second Surgical Division, Grace Hospital, Detroit.

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SPECIAL FEATURES

More particularly, however, the surgeon must take cognizance of the following points:

(1) Is the tumor encapsulated?
(2) Is the growth freely movable?
(3) What is its size, shape, and consistency?
(4) What is its location in relation to hemisphere and quadrant of the breast?
(5) What is its location in relation to depth within the mammary tissues? Is it above, below, or "frozen into" the substance of the breast?
(6) Is it single or multiple?
(7) Does the opposite breast also contain one or more tumors?
(8) Has there been bleeding from the nipple?
(9) Is the tumor attached either to the skin or to underlying structures?
(10) Are the lymph-glands of the neighboring axilla, or supraclavicular space, or those in the opposite axilla involved?
(11) What are the evidences of metastasis?

PRACTICAL DIAGNOSIS

Facing the particular case, the following answers to some of these questions may simplify the surgeon's problem:

(a) As to those *tumors usually benign,* we note that,
  (1) All tumors, whether single or multiple, between puberty and the age of twenty-five are usually benign; circumscribed sarcomata are exceptions to this rule, and rarely, a carcinoma.
  (2) Multiple tumors are usually benign. While it is true that benign and malignant neoplasms have been found in the same breast, such a condition is very rare.
  (3) Tumors occurring simultaneously in both breasts are usually benign, though exceptions do occur such as carcinoma in both breasts, or carcinoma in one and a fibro-epithelial tumor on the opposite side.
  (4) An encapsulated tumor is usually not malignant.
  (5) Cystic tumors are usually benign, though they may sometimes be diagnosed, as benign or malignant, depending upon the nature of their contents. Such a content may be clear, cloudy, bloody, milky, thick, or grumous. If bloody, a diagnosis must be made between carcinoma and an intracystic papilloma; if thick and grumous, it usually points to malignancy. But, from a clinical point of view, either of these two types of cysts should be considered malignant and treated accordingly.

(b) As to *location* of the tumor within the breast, it is found that
  (1) In the axillary half of the breast, 38 per cent of all tumors are malignant, while in the sternal half only 10 per cent are so.
  (2) In the upper, outer quadrant, 29.% are malignant; in the upper, inner quadrant, 5.% are malignant; in the lower, inner quadrant, 9.2% are malignant; in the lower, outer quadrant, 11.% are malignant.
  (3) With the tumor generalized throughout the breast, 9.2% will be found malignant, while of those centrally located, 19.7% are so.

(c) As regards the *consistency* of the tumor, we observe that, among the carcinomata, scirrus and simplex are characterized by their hardness. Fibroepithelial tumors are hard and, when deeply situated and adherent to the breast, are difficult to differentiate from carcinoma.

(d) Of *bloody discharge from the nipple,* it may be said that these cases are due, in great part, to primary papillary epitheliomata of the milk-ducts or to benign intracystic papillomata. Bloody discharge from the nipple should excite suspicion of malignancy at all times.

(e) *Attachment* of the tumor *to* the *skin* almost invariably means malignancy. A carcinoma usually begins as a discrete nodule situated in the glandular tissue; and as it grows it shortens the fibrous trabeculae of the structure and fixation to the skin or submammary tissues takes place.

(f) *Metastases in* the *axilla* are a comparatively late complication.

CLASSIFICATION OF TUMORS OF THE BREAST
(AFTER WARREN)

A. Benign:
  (1) Fibroepithelial tumors:
    (a) Fibrous types:
      (1′) Periductal fibroma,
      (2′) " myxoma.
    (b) Epithelial types:
      (1′) Cystadenoma,
      (2′) Papillary cystadenoma.
  (2) Uncommon tumors:
    (a) Lipoma,
    (b) Enchondroma,
    (c) Myxoma,
    (d) Angioma,
    (e) Endothelioma,
    (f) Leiomyoma.

B. Malignant:
  (1) Carcinoma; primary and secondary:
    (a) Adenocarcinoma,
    (b) Medullary carcinoma,
    (c) Scirrhus carcinoma,
    (d) Carcinoma simplex,
    (e) Gelatinous carcinoma,
    (f) Cancer *en cuirasse,*
    (g) Epithelioma.
  (2) Sarcoma; periductal and non-indigenous:
    (a) Spindle-cell sarcoma,
    (b) Round-cell sarcoma,
    (c) Mixed-cell sarcoma,
    (d) Melanotic sarcoma,
    (e) Alveolar sarcoma.

According to Bloodgood, the most common tumors of the breast are:

A. Of the Benign:
  (1) Fibro-adenoma,
  (2) Intracanalicular myxoma,
  (3) Cystic adenoma,
  (4) Other cystic conditions, including chronic cystic mastitis.

B. Of the Malignant:
  (1) Scirrhus carcinoma,
  (2) Carcinoma simplex,
  (3) Adenocarcinoma,
  (4) Medullary carcinoma.

CARCINOMA—ITS SPECIFIC DIAGNOSIS

The diagnosis of carcinoma of the breast is not always an easy problem. Statistics reveal that it occurs most frequently between the ages of 35 and 65 years, although a small proportion of cases do occur before 35. In Rodman's series of five thousand cases, two per cent were found between the ages of twenty and thirty.

Another helpful diagnostic point is that 75 per cent or more of all tumors of the breast are cancerous. Billroth reported 82%; Bryant, 83.1%; Schmidt, 82.6%; Grosse, 82.4%; Poulsen, 78%; and Schwarzkopf, 83.15%. It is well to follow, with Bloodgood, the rule that, in any patient over twenty-five years of age, any lump in the breast should be considered malignant until proven benign.

The following particular considerations are important to bear in mind:

(1) Carcinoma is usually a single tumor, and very rarely occurs in both breasts simultaneously.

(2) With few exceptions, it is hard under palpation.

(3) In some cases there is a bloody discharge from the nipple.

(4) Pain, in the early part of the history of the case, is usually absent.

(5) That carcinoma is practically never movable, except as it moves with the breast.

(6) In later stages, it may be attached to the skin, so as to cause a dimpling, or even the nipple may be retracted by a similar process; and still later the tumor may become adherent to the pectoral fascia or the ribs.

(7) By far the greater number will be found in the upper, outer quadrant of the breast.

(8) A point mentioned by Halsted is as follows; he says, "It is important carefully to note the relative amount of uninvolved mammary gland tissue remaining, relative to the amount in the other breast and to the size of the new growth. If the tumor has grown little or not at all at the expense of the breast, it is quite surely a definite adenomatous type and not a scirrhus."

(9) In advanced cases, the axillary and supraclavicular lymph-glands are palpable.

(10) In late cases, ulceration may take place.

(11) In a few cases, even comparatively early, metastases in distant organs are present; for instance, in the lungs, mediastinum, liver, bones, etc. This uncertain factor doubtless is responsible in many cases for failure permanently to cure cancers originating in the breast.

The *differential diagnosis* of carcinoma must be made from sarcoma, abnormal involution, fibro-epithelial tumors, tuberculosis, syphilis, chronic pyogenic mastitis, and cysts.

Periductal sarcoma is a rapidly growing tumor, encapsulated, multilobar and frequently cystic in places. Sarcoma arising in the con-

nective-tissue stroma of the breast may be difficult or impossible to differentiate.

Abnormal involution (chronic cystic mastitis, Reclus' disease, or Schimmelbusch's disease) is usually diffuse, frequently bilaterial, more or less cystic and is usually unassociated with dimpling of the skin or attachment to the pectoral fascia. Furthermore, pain frequently accompanies abnormal involution; and it may be impossible in some instances to differentiate a small area of abnormal involution from carcinoma. By some writers, this condition is considered a pre-cancerous development.

Fibro-epithelial tumors may occur in younger women and sometimes are attached to the skin or the pectoral fascia. These tumors are encapsulated, round or lobulated, and are not sensitive to pressure.

Periductal myxomata resemble the periductal sarcomata, but periductal sarcoma grows more rapidly.

Intracystic papillomata frequently undergo malignant change. They are usually found in the nipple zone and may be associated with a discharge from the nipple itself.

Tuberculosis of the breast runs a rapid course and early produces a fistulous formation. The early stage of tuberculosis of the breast is almost indistinguishable from carcinoma, and the sclerotic type is difficult to differentiate from scirrhus.

Syphilis, in its various stages, of chancre, syphilides, or gummata, may confuse the diagnosis of carcinoma or be mistaken for it; while it is also true that syphilis and carcinoma may co-exist. The Wassermann reaction and a dark-field examination for the treponema pallidum, together with the history, should clear the diagnosis. Syphilitic mastitis is a possible condition to be borne in mind.

Chronic pyogenic mastitis occasionally simulates carcinoma, especially where areas of softening or tenderness are absent and where sclerosis, with attachment to the skin, retraction of the nipple, and involvement of the axillary glands are present. The history should help to clear the diagnosis.

The various cysts may have to be diagnosed from carcinoma. These are:

(1) Simple retention cysts,
(2) Cysts associated with abnormal involution.
(3) Cystadenomata, and
(4) Galactocele.

Retention cysts and cystadenomata have an elastic quality under palpation. Galactocele is related to lactation and gives a doughy feeling and sometimes will pit on pressure.

THE TREATMENT OF TUMORS OF THE BREAST

The surgeon must, of necessity, roughly classify his cases clinically in order to determine the treatment best suited to each. I have adopted the following simple classification:

(1) Neoplasms clinically benign,
(2) Those clinically malignant, and
(3) The doubtful cases.

In the first class, will fall the large proportion of all neoplasms in patients between puberty and the age of twenty-five; and all tumors in which no doubt is entertained of the benign character of the growth; and in the second class are placed all those growths where there is little or no doubt of malignancy. It is the third class, the doubtful cases, where the greatest amount of care and good judgment are required; and in these cases I have adopted the practice recommended by such men as Halsted and Bloodgood, viz., that of *exploratory incision*.

TECHNIC OF THE EXPLORATORY INCISION

Two methods are available:

A. Cutting down upon the tumor; examining it carefully in the gross; and with a frozen section if deemed necessary. At the same time, I am prepared to cauterize the wound, with either the thermocautery or the chemical cautery, and if malignancy is found a radical operation immediately follows.

B. Removal of the growth with a wide margin of tissue; examination by the same technic as described above. If the tumor can be positively identified as benign, the wound is sutured and the breast preserved.

A large majority of women prefer to avoid losing a breast and will much more readily submit to operation if they can be assured that the breast will be spared if not malignant. However, if after all care has been used it is not possible to make a positive diagnosis that the tumor is benign, then a radical operation should be performed.

As one's experience increases, he becomes more positive of the nature of any tumor encountered and examination of its tissues in the gross is frequently more satisfactory than the frozen section. In cutting down upon a fibroadenoma, or a benign cyst, one encounters a freely movable tumor with only cobweb adhesions to the surrounding structures; in the case of a malignant cyst, or carcinoma, the tissue is more fixed; and about a circumscribed sarcoma there is usually an area of oedema. The exploration should be made so slowly and carefully that the adhesions to, or the oedema about the tumor can be carefully noted.

THE INDICATIONS FOR AND AGAINST OPERATION AND ITS EXTENT

A. Benign tumors:

Should all benign tumors be removed? Yes—and carefully examined microscopically, in order that no mistake may be made in the surgical treatment in such cases.

B. Malignant tumors:

After the doubtful cases, as above described,

have been cleared up through exploratory incision, the surgeon has still to discriminate among the malignant cases as to their operability; and for this purpose he will distinguish between the following groups:

Group 1. Cases in which the tumor has been discovered *early* in its malignancy; is not adherent to the skin nor to the structures beneath the breast; and in which the axillary glands are not involved.

This group offers the best opportunity for successful surgery and, by doing the radical operation, seventy-five per cent of three-year cures should be obtained. In most instances, the cancerous tissue can be removed so completely that the patient will remain cured for many years. And it should be remembered that the body, in some instances, probably possesses natural powers of destroying the few cancer-cells left behind, and this feature may be of great importance.

Here too, is where the X-ray is a valuable adjunct. However, even in the apparently early case, every surgeon can recall cases in which radical operation was done, only to find extensive recurrences taking place in a comparatively short time.

A particularly distressing feature of breast carcinoma, even in the cases of this group, is the early, and even distant, metastasis. In view of this possibility, it is certainly good practice to carry out a preliminary X-ray examination of the areas most commonly found to be the seats of such metastasis, such as the lungs, mediastinum, spine, skull and long bones. If the X-ray thus reveals metastasis, little may be hoped for from any kind of surgery.

Group 2. Cases in which the *axillary glands* are *palpable but* the *tumor* is *not adherent* to the skin nor submammary structures.

Here the question to decide is whether or not these glands are cancerous; palpable axillary glands do not always mean cancerous involvement. Enlarged lymph-glands may have been due to a previous infection of the arm or breast; and further, lymph-nodes do become enlarged in diseases of the breast other than cancer. Deaver reports that in twelve out of seventy-four cases of mammary cancer, palpable glands proved to be not cancerous.

Group 3. Cases in which the *tumor* is *adherent to* the *skin* or the submammary structures *but* is *movable on* the *ribs*, with or without involvement of the axillary or supraclavicular glands.

The probability of any cure after the most radical operation in patients of this group is not large—not more than 15 or 20 per cent—but even at the risk of bringing discredit upon surgery the patient should be given the benefit of operation.

Group 4. The *inoperable* cases.

Handley gives the following positive contra-indications for operation in cancer:

(a) When the primary growth is attached to the bony thorax;
(b) Cancer *en cuirasse;*
(c) When there is a fixed mass of growth in the axilla;
(d) If there is marked oedema of the arm;
(e) If the supraclavicular glands are enlarged, fixed and hard;
(f) If there is evidence of visceral or bone metastasis;
(g) In the acute forms of carcinoma.

In a small proportion of cases, presenting constitutional disease, patients occasionally bear an operation unusually well; e. g., chronic myocardial disease and nephritis. However, it is difficult to forecast which patients will, and which will not, go through such an operation safely.

Group 5. Inoperable cases in which a *palliative operation* may properly be performed for the relief of symptoms.

It is occasionally permissible to do such an operation to relieve a patient's discomfort, but the family or friends should be given to understand that the operation is only of a palliative nature. Operations for the relief of great pain or for the removal of a large sloughing breast are justifiable. Not all surgeons, however, are agreed as to the extent to which it is proper to act upon this principle. One of the Mayos has remarked that the best interest of medicine, in its broadest application, would be served by allowing these patients to be living examples of ill-advised delay instead of unsatisfactory re-results of ill-advised surgery.

HISTORY OF THE TECHNIC

Charles Moore of London, in 1867, was one of the first to do a radical operation for cancer of the breast, as he was one of the first to grasp the principle of the dissemination of cancer-cells. After Moore came Lister, Kuester, and the younger Gross. The names of Halsted, Willy Meyer, Volkman, and Watson Cheyne are inseparably connected with the development of the modern operation. In fact since Halsted brought out his operation in 1894, improvements in technic have been of a minor character. Most of such have had to do with special incisions. Incisions down the arm have now been largely abandoned. Halsted recommended, among other things, the removal of a large area of the skin, to be followed by a skin-grafting over the area thus remaining uncovered. An improvement in the technic consists of beginning the dissection at the apex of the axilla. And another is that recommended by Handley, of removing the deep fascia over wide areas, since Handley believes that cancer dissemination takes place largely, if not en-

tirely, through a process of permeation of the lymphatics.

THE ROENTGEN RAY

Shall the X-ray be used before or after operation, or both? Roentgenologists agree that before operation it is a valuable adjunct and that after operation it is indispensable; but surgeons are not at all agreed as to the actual value of roentgen-therapy for cancer of the breast. However, it is my belief, based upon case-reports and my own experience, that X-ray should be used both before and after operation and that it should be given in such dosage as to kill, render harmless, or block off all carcinomatous cells not reached by the knife. Even though we remove large areas of skin, dissect extensively the pectoral and upper abdominal fasciae, and remove all axillary glands, still a few cancer cells may be left behind. These should be effectively treated, if possible destroyed, with the X-ray. In the treatment of superficial metastases also the Roentgen ray is valuable, as has many times been demonstrated to me by Dr. R. H. Stevens. Pfahler and others have reported excellent results. In the treatment of inoperable carcinoma, the use of X-ray may prolong life and lessen suffering.

RADIUM

In localized recurrences, radium is valuable. Occasional instances have been reported where radium, after the X-ray had failed, caused such recurrences to disappear. Handley recommends the use of radium in conjunction with surgical operation. After a radical operation, he implants 25 mg., properly screened, at the points where recurrence most often takes place, viz.,

(1) Supraclavicular space (lower triangle of the neck,

(2) First intercostal space, near the sternum;

(3) Second intercostal space, near the sternum;

(4) Third intercostal space, near the sternum; and he leaves the radium, thus implanted, in place for twenty-four hours. Recurrence in the scar or in the axilla is, I believe, best treated with radium, if the recurrence is small. If the glands in the axilla are the seat of recurrence, these may be treated by (a) removal, (b) radium, (c) X-ray, or (d) by all three of these means.

The X-ray is the only hope in the treatment of deep-seated metastases, such as those in the bones, the lungs, liver or mediastinum; but at best in such cases it is only palliative.

In *conclusion,* it is my opinion that,

(1) Seventy-five per cent of all early carcinomata of the breast can be cured, for a time at least, by a combination of surgery and the X-ray; that

(2) Where axillary involvement has taken place, such cures in twenty-five per cent of the cases is the best that may be hoped for; and that

(3) The Roentgen-ray and radium are valuable adjuncts in the treatment of cancer of the breast.

PARINAUD'S CONJUNCTIVITIS

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It is about 35 years since Henri Parinaud[1], a celebrated Parisian ophthalmologist, described a peculiar form of conjunctivitis which now always bears his name, and whose origin he attributed to some infection from the lower animals. The characteristic pathology of this condition consists in swelling of the eye-lids, muco-pudulent discharge, swelling of the preauricular gland and afterwards the parotid, submaxillary and cervical, and polypoid granulations springing from the conjunctiva. The bulbar conjunctiva and cornea may become involved but are not characteristic of the condition. Squirrel-Plague Conjunctivitis[2] and the closely allied conjunctivitis of Pascheff (Conjunctivitis Necrotians Infectosa), are considered by some authorities as only varieties of Parinaud's conjunctivitis and caused by the same organism.

The etiologic cause of Parinaud's conjunctivitis has not as yet been definitely fixed, but there have been a considerable number of causes suggested. The theory of anaphylaxis and protein sensitization has a reasonable foundation to be considered as a causative factor in giving rise to this condition. It is recognized that the resistance of different individuals to proteins, whether animal or plant, varies widely, some being very high and others very low. It has been observed that when the resistance of an individual to the action of the protein is once overcome by an excessive dose, that individual is ever afterwards sensitive to that particular protein. One may become sensitized by absorption through the intestinal tract or some mucous surface. This may hold in protein infection of the conjunctiva for when the local effect reaches its maximum, the resistive power of the adjacent tissues has become so impaired that some infection other than protein can readily occur. The above being suggested as the etiologic cause in a case reported by H. L. Hilgartner[3], who reported a case of Parinaud's conjunctivitis, which in his judgment the conjunctivitis originated in a local infection with the specific protein of cow-hair.

Rolandi[4] and some other observers are of

the opinion that Parinaud's conjunctivitis is not a distinct entity, but in its classic form is a special type of tuberculosis of the conjunctiva characterized by an exceptionally benign course and spontaneous recovery. However, in the case I am reporting I am inclined to agree with the etiologic cause advanced by Verhoeff[5], who in an investigation of twelve cases found characteristic histologic lesions in all, and within areas of cell necrosis similar characteristic microorganisms were found in eleven. The microorganisms being filamentous, non branching 10 to 60 microns in diameter, and found irregularly clumped. These organisms are classed as leptothrix and were found in and about the necrotic areas.

CASE HISTORY

Patient, Mrs. A. B., 27, housewife, mother of two children both of which were delivered by Caeserian Section. The mother and three aunts of the patient have died of tuberculosis and the patient's sister gives an earlier tubercular history but is now enjoying good health at 25. The patient walks with a marked limp due to old hip disease, fell down stairs when 20 months and again at 4 years of age, after which the hip trouble developed. Abscess formed which discharged for nearly two years.

The patient was married at 17 and has been able to do all her house-work with exceptions of the two confinement periods. The family history of tuberculosis and the hip disease of the patient is emphasized because the tubercular theory is advanced by some authorities as being the etiologic factor in Parinaud's conjunctivitis.

There were two conditions for which patient consulted me: a freely movable tumor the size of a large bean in the fold of the upper left lid, this had been forming for more than a year and was red and painful at times; the other condition was in the right lower lid near the opening of the canaliculus and suggested an infected chalazion which had erupted, giving rise to granuloma. This condition had been present for only about a week and had ruptured three days previous to coming to the office. The patient thought it a stye.

I excised the sebaceous tumor on left lid under infiltration anesthesia. Wound healed by primary union. The condition in the right lower lid I anesthetized with instilations, everted the lid and with scissors clipped off the cauliflower-like top, gently curetted the base and applied alcohol, and gave patient 1 per cent yellow oxid ointment and a mild wash for home use.

The following day the lid appeared normal externally, as did the eye-ball. Vision taken and found to be 20/30, or better. Two days later patient called me by phone and stated that a little lump that had been present in front of her right ear for about three months was now becoming more painful and growing larger, and with that, now the right side of her face was also swollen and her right eye almost closed. My suspicions were aroused that possibly I had stirred up an erysipelatic condition, or was dealing with a condition that suggested Parinaud's conjunctivitis, and asked her to report at once to the office. This she did. I found the condition much like she had reported. The right lower lid was greatly swollen, the upper but slight, and was indurated and somewhat painful to pressure, on eversion there was considerable discharge present. The palpebral conjunctiva was turgescent and extending down into the lower fornix it was dotted with gray nodular elevations. Similar nodules are characteristic of Parinaud's conjunctivitis. The base of the conjunctival wound was coated with a thin creamy pus from which smears were made, and from this same site smears were made on two subsequent visits. The induration and the swelling of the preauricular, the parotid, the submaxillary, and the anterior cervical glands of the right side continued to increase for nearly three weeks, then gradually to subside, the preauricular being very slow in its involution. The lid was the first to show signs of returning to normal contour. The skin over the parotid became tense and glossy and the right sided cervical swelling extended to the clavicle but at no time did the glands or the areas over them show evidence of breaking down. Pressure over the swollen areas produced pitting but the patient did not complain of extreme tenderness. The posterior Pharynx manifested considerable hyperaemia during the progressive stage, but tonsils showed little change.

The first smear stained with methylene-blue showed staphlococci, a few diplococci, and scattered clumps of filamentous non-branching microorganisms similar to those described by Verhoeff.

In the other smears taken later the filamentous organisms were numerous and while morphologically they did appear somewhat like tubercle bacilli, though longer and much thicker, however, they were not acid-fast in their staining properties, carbol fuchsin, acid alcohol and counter stain used in staining to determine presence of tubercle bacilli.

With the progress of the condition fever developed and some dysphagia and two weeks after I first saw the patient she was having chills daily in spite of local and constitutional treatment. On the sixteenth day I administered 20 grains of sodium salicylate intravenously in addition to the 60 daily she was taking by mouth. This was followed by marked constitutional improvement in the next 36 hours. The patient at this time developed pain in the right eye with some pericorneal injection and with that the loss of central with a much reduced distance vision in this eye. This was probably due to a superficial keratitis which sometimes occurs in Perinaud's conjunctivitis. One per cent atropin solution instilled one drop t.i.d. gave relief from pain and was discontinued on the third day as the eye had assumed a normal color and vision returned later to its normal. At the end of eight weeks the preauricular swelling was still present to some degree while the others had subsided to normal and the conjunctiva had taken on a healthy appearance.

There is an interesting etiologic factor to be considered in conjunction with this case for the reason that the patient owned a kitten that had a peculiar cough and a discharge from its eyes from which it recovered in about six weeks time. It was thought that the kitten had distemper. It was during this period, about three months previous to the patient's first vsiit to my office that the paient and her husband stated that the preauricular swelling (bean-like) was noticed. The patient had an irritable cough previous to her first visit. This cough became worse and subsided with the glandular swelling. The case suggests a parallel to that reported by Hilgartner in that my patient probably had sensitized herself to the conjunctival infection and I in my operative procedure caused the absorption of the excessive dose resulting in the lymphatic extension and the constitutional dis-

turbance. The question suggests itself: Was the condition of the kitten a coincidence or were the two conditions related?

CASE REPORT

1. American Enoyc. Oph.
2. Fuch's Seventh Edition.
3. Texas St. Med. Journal, May, 1924.
4. & 5. American Journal Oph.—Practical Med. Series, 1924.

INTUMESCENT RHINITIS AND SINUSITIS

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The purpose of this article is to stimulate the profession to not alone examine the sinuses and nose, but to also stimulate research in its treatment, which will be successful.

Being located in a region where the atmospheric conditions are favorable for the development of intumescent rhinitis and sinusitis, I cannot help but realize how many have been sent home with the understanding that there was nothing to do but suffer the rest of their lives with a "Catarrh." Some have been advised to go to a different region where "Catarrhs" are not prevalent and so benefit materially; but some cannot afford to go away or do not wish to leave their home, business and friends behind.

The cause of these allied conditions is well known to everyone. It usually starts with a "cold." The invading organism depends upon the type of infection prevalent. At one time it may be the pneumococci, at another time the influenza bacilli, etc., but suffice it to say, it is an infection due to any of the organisms found in the nose and throat. I am not considering the conditions due to sensitization, nor abnormalities due to congential defects or traumatism.

PATHOLOGY

We have a mucous membrane which is markedly oedematous in the early stages of infection and which in the last stages is often followed by an atrophic degeneration. It takes a long period of time to merge from the former into the latter and often without any therapy. The intumescency may remain latent. I have seen intumescent rhinitis probed with cocaine and adrenaline for months, (so as to give the patient temporary relief) only to give rise to a marked papillomatous degeneration. This inevitably must follow because no matter how careful one is, there is some injury done the mucosa, which reacts by forming infectious granulomas.

Were this intumescency just an aseptic oedema or lymphangitis, we could expect a cure to follow stimulation (by probing or spraying) which occasionally happens in acute rhinitis. This is so, because the infection was only superficial. But in the chronic intumescencies we have not a simple oedema but a tissue infiltration. This is a chronic cellulitis. The thickness of the mucosa in this condition depends upon the duration of the infection and also the slowness with which the reaction takes place. Let me here say that every cold in the nose is not cured on the subsidence of all symptoms, just as gonorrhoea is not necessarily cured when the discharge stops. This period of latency is the time to watch the mucosa in order to cure the individual and not let it progress into a chronic state. If this would be taken into consideration, there would be less intumescent rhinitis.

When the intumescency is present as a rhinitis only, it is often overlooked because there are no symptoms, or if there are they are minor and so ignored. When one side of the nose is oedematous or each nostril takes turn in swelling, the condition is ignored by the patient. They do not want to be bothered treating it, for it is a minor ailment and takes up too much time going to the doctor's office. It is not distressing enough to see a physician. If the nostrils are blocked, then the individuals seek the advice of their physicians. Their symptoms vary with the degree of involvement. But should this condition spread to the sinuses we have a more difficult problem to tackle. The diseased mucosa gives off a mucous or serous discharge in the early infections and in the later stages a mucopurulent excretion. Sometimes the patient becomes alarmed at the discharge, but this is quite rare.

SYMPTOMS

Many individuals come to my office with a variety of symptoms; pain (localized or general), fever, vertigo, headaches, rapid or slow pulse, asthenia, dimness of vision, nausea, asthmatic respiration, no ambition, coughing, very often followed by gagging and vomiting, recurring otitis media, etc. From the symptoms alone one would be inclined to treat that specific symptom or feel around in the dark, and very often we are surprised to find our patients dissatisfied. For a patient is only interested in getting well. Without an examination of the nose, we cannot get at the cause. I recall at this moment a nurse who had been treated for bronchitis because of a persistent paroxysmal cough. Some told her she had whooping cough. On examination, I could find no abnormality in the chest. X-ray verified my findings. On treating the nose, she stopped coughing in three days and has been free from it since. Another individual came because of dizziness and gas eructions. His blood pressure was systolic 196, and diastolic 150. In one week his blood pressure dropped to 128-84 and has remained at that mark for the last four years.

How many individuals complain of toothache when there is a definite nasal condition. All

this is well known to you, but not considered of any importance until someone calls it to your attention. Very often we are at a loss to determine what is wrong with our patients. who complain bitterly. We fall back on the diagnosis of hysteria and neurasthenia.

DIAGNOSIS

Inspection, one of the most important methods of examination, should be done in every case by the examining physician, for without this examination we are losing considerable information. X-ray of the sinuses will often disclose a pneumatic condition and when there is air in a sinus the X-ray findings are negative. This is so because the air does not interfere with the penetration of the ray while pus does and a smaller amount will be penetrated by the ray easily. Transillumination will give one a better idea, especially, when you take into consideration the comparison of both sides of the face, and when one side is clear; but should both sides be partly cloudy, I have often heard the remark passed, "That density is due to the thickness of the bones." This may be true in some few cases but in the majority it does not hold true. A cellulitic condition causes that cloudiness. A simple oedema does not. For I have transilluminated many acute nasal conditions and found perfectly clear sinuses. The light will pass readily through the serous filled tissues but not so in purulent or hemorrhagic conditions. This examination whether vague or clear should be considered together with the symptoms of the patient. A congestion of the sclera of the eye at the inner canthus should also be investigated and not just passed off with a "slight inflammation" without determining the cause. It is probably a dacryocystitis due to an extension up the nasolacrimal duct, and that too, becomes a focus of infection, after a nasal condition has been cleared up. Many patients who cannot find a cause for their receding gums overlook the sinuses as a possible factor. The organism gets into the gum margin when one has little or no immunity to that organism present in the nose. It causes as you will often see, an intumescency at the gum and tooth margin. I do not say that all cases of pyorrhoea are caused by nasal conditions, but I do say, that very many of them are caused by nasal and sinus infections, for the individual has not developed an immunity against that infection. In other words, in order to complete your diagnosis, take into consideration, particularly when the individual has no symptoms referable to the nose, any pathological condition present in the adjacent structure of the nose.

Another factor to be considered is the persistent cough about which many complain; even though there is nothing to be found in the chest many physicians tell their patients they have bronchitis. That satisfies the patient. What these patients have is a draining from the sinuses posteriorly into the nasopharynx, causing a tickle or trickling sensation which in turn causes the cough. The X-ray will show a pneumatic condition of the sinuses. Transillumination will give a perfectly clear picture and so some are at a loss to make a diagnosis. This drainage from the sinuses is most often a serous discharge. In some cases if this does not stop, the tracheobronchial glands become enlarged and then X-ray treatments are instituted. In other cases, some patients are treated for whooping cough because the cough may become paroxsymal in type. If one will consider the serous discharge from a superficial sore produced by adhesive plaster, one will readily understand the condition present in the sinuses.

This condition is the cause of many disturbances which clear up when the nasal factor is remedied. This is definite proof that your diagnosis is correct.

TREATMENT

There are many ways of treating nasal conditions. I shall hear strong comment especially in regard to my suggestions in treatment. I am not in favor of nasal douching or constant spraying, because the mucosa is oedematous and is loaded so to speak. If on the other hand the condition is subsiding, then the mucosa will absorb some of the liquid. Probing is as bad a practice as douching. For the mucosa is easily injured. In the future that individual is operated on for polyps or papillomitous degeneration. I do not believe that submucous resection will cure this condition. This operation is often suggested because the individuals have very little breathing space. The results of this operation are overestimated. Turbinectomies are also suggested to give more breathing space. In some cases this is necessary but these cases are few in proportion to the number that are actually done. By the above discussion let me not convey the idea that surgery should not be performed on the nose, but let me try to impress that too much is being done. Sinus puncture in acute or subacute stage is bad surgery. I have yet to see a case that I have not quieted by steaming hot applications to the face. When an organism is virulent, why work against nature by breaking her defenses (her indurations)? Why squeeze a pimple or a boil? Is it because you want a carbuncle? Then why cut into nature's defense and disseminate the virulent infection? An osteomyelitis is a serious condition and should be considered as a very important complication. This condition (chronic osteomyelitis, most often brought on by puncture) makes me feel more and more every day that many of our cases of arthritis deformans are due to just these infections in the bone and nasal cartilage, with the assuming by the bacteria a specificity for bone, just as Dr. Rosenau

has brought out the specificity of organism for gall bladder, appendix, ulcer, etc. Many have acquired a habit of enucleating tonsils to cure nasal conditions. This is not good practice. It makes the patient lose faith in the physician. Drugs rarely relieve this condition.

The following suggestions I offer for trial:

1. Hot applications to the face, in the acute and subacute state.
2. Ultraviolet Ray treatments intra-nasally over a long period of time.
3. Autogenous vaccine in combination with Ultraviolet Ray treatment.
4. A hot dry climate like Arizona.

One word of warning in regard to the Ultraviolet Ray. Do not burn the mucous membrane of the nose.

Remember that an inflammation in the nose should be followed up and not permitted to become chronic. Two or three Ultraviolet Ray treatments will clear the acute condition as it is subsiding.

FOCAL INFECTION IN THE TEETH CAUSING TRANSVERSE MYELITIS*

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The idea of focal infection as it pertains to the causation of diseases of the nervous system has been discussed by many writers. Ample proof for the correctness of this idea has been adduced both in the laboratory and clinical practice. It has long been known, for instance, that a distinct relationship exists between septic tonsils and Sydenham's chorea, that the most frequent cause of brain abscess is an infectious process in one or other of the accessory nasal sinuses, and that a diseased tooth may lead to an intractable neuritis which subsides only upon removal of the primary focus. Reference has even been made to the frequent association of infectious foci to mental disorders, and McCarthy (1) admits the possibility of focal infections acting directly upon the brain with the production of psychotic symptoms.

Clinical evidence as to the relation of focal infection to diseases of the nervous system has been offered by a number of writers. King (2) and Stearns (3) have discussed the subject in a general way. More specific references have been given by others. Dabney (4), for instance, has reported four cases of Bell's seventh nerve palsy of infectious origin, two of which were associated with apical abscesses, one with an acute empyema of the left antrum, and one with septic tonsils. Hunt (5) describes a case of disseminated myelitis that appeared four days following an operation for acute mastoiditis. Oppenheim (6) mentions a case of transverse myelitis that to all appearances was due to a suppuration in the antrum of Highmore.

Rosenow, more than any other, has brought forth the most experimental evidence to support the idea of focal infection as an etiologic factor in nervous diseases. His observations in regard to the elective localization of bacteria in diseases of the nervous system (7) and his experimental studies on the etiology of encephalitis (8), chorea (9), and herpes zoster (10) point out with clarity the importance of infected teeth and tonsils in causing diseases of the nervous system.

The relation of myelitis to acute infectious processes has long been recognized. It is known that it may complicate any of the so-called acute infectious diseases. Its association with appendicitis, pneumonia and particularly urinary tract infections, as indicated by Currier (11), (paraplegiae urinariae) has drawn frequent comment. Few, if any, specific allusions have been made to its relation with dental sepsis, however.

That apical abscesses or other forms of dental sepsis might lead to acute myelitis is not to be denied in theory. Transportation of micro-organisms from the teeth to the spinal cord is readily possible by hematogenous metastases. Rosenow (7) was the first to sense this possibility, and offered impressive experimental evidence to support his view. He found lesions of the spinal cord in sixty-six per cent of twenty-one animals injected with bacteria isolated from pyorrhoeal pockets and tonsils in a case of transverse myelitis with paralysis of the lower extremities. Partial or complete paralysis developed in many of these animals. The lesions in the cord consisted chiefly of hemorrhages both in the gray and white matter.

The idea that dental infection does act as an etiologic factor in the production of transverse myelitis would appear to be borne out by the following case, that of a man completely paralyzed in the lower extremities as the result of an upper dorsal myelitis, who showed prompt and continued improvement leading to almost complete recovery following the extraction of one abscessed and several carious teeth.

The patient, E. J., a factory employe forty years of age, entered the neurological service of the University hospital November 7, 1925, complaining of inability to walk, numbness of the trunk and lower extremities and incontinence of urine and feces. His family history was negative. Nothing was found in his previous medical history to account for his present difficulty. He denied venereal disease. His wife, to whom he had been married for fifteen years, and one child were living and in good health. She had had no miscarriages. He stated that his present illness began on October 13, 1925 with an aching pain in both feet and soreness in the calf muscles. Three days later over a period of about five minutes he developed numbness of the lower extremities up to the hips. Subsequently numbness appeared over the trunk. One week after the onset of his illness he

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became troubled with weakness in his legs, which progressed rapidly to complete paralysis of the lower extremities. At this time he developed incontinence of feces and retention of urine. He was catheterized three times daily until two days before entrance to the University hospital when he developed urinary incontinence. Throughout his present illness he had had no chills or fever. Upon examination he was found to be a well nourished adult of clear mentality. The pupils were equal and reacted promptly to light and in accommodation. The extra-ocular movements were well performed. There was no nystagmus. The ocular fundi were essentially negative. His hearing was within normal limits. There was no paralysis of the face, jaw, tongue or soft palate. Examination of the upper extremities revealed no abnormalities. The umbilical reflex was not obtained on either side. There was complete paralysis of the lower extremities. Knee jerks were slightly over-active, the Achilles jerks about normal. The plantar reflex was not obtained on either side. There was double ankle clonus. Tendo-Achilles tenderness and the sense of motion and position in the toes were lost. The feet were cyanotic but not edematous. All forms of superficial sensibility were lost below the area of distribution of the fourth thoracic segment. There was no localized tenderness or bony deformity of the spine. A general physical examination was essentially negative. Blood pressure was 128/76.. His temperature was 98.2, pulse 112 and respirations 18 at the time of entrance to the hospital. Examination of the blood revealed 80% hemoglobin, 4,380,000 red blood cells and 12,050 white blood cells. The differential count showed 78% neutrophiles but was otherwise normal. Urinalysis showed a trace of albumin and many white blood cells. No gonococci were demonstrated. The blood Wassermann reaction was negative. A lumbar puncture on November 10, 1925 yielded a non-xanthochromatic fluid containing fifteen cells to the cubic millimeter. Pandy and Nonne-Apelt tests revealed an increase in the albumin and globulin content. Reduction with Fehling's solution was normal. The Wassermann reaction on the spinal fluid was negative. The gold sol curve was 00000000000 and the mastic 122100. Manometric readings taken at the time of puncture gave no evidence of subarachnoid block. X-ray plates of the cervical and thoracic divisions of the spine were reported negative. Dental films showed an abscess at the apex of the upper left central incisor. The patient was referred to the Department of Oral Surgery who advised extraction of this tooth and six other carious ones. He was also referred to the Department of Otology who reported septic tonsils and advised their removal. A diagnosis of acute infectious myelitis was made. In the absence of other possible etiologic factors this was thought to be secondary to a focal infection.

On November 16, 1925 four upper teeth including the abscessed central incisor were extracted. Excerpts from ward notes following this procedure follow:

November 17—Can move the toes of his right foot slightly.

November 19—Is able to move the right foot at the ankle joint and the toes of the left foot. He says he has better control of his bladder.

November 25—Had three lower carious teeth extracted.

November 28—He can move his lower extremities at the knee and hip joints, but does so weakly. Movements are made with greater strength with the right limb. Lower extremities are now somewhat spastic. No sensory return is noted.

December 8—He is able to stand and walk a short distance with assistance. He feels pin-prick as pin-prick in certain areas over the thighs. Tonsillectomy performed today.

December 13—Motor power has largely returned in the lower extremities but he makes all movements weakly. Sensory appreciation shows no further return. Is still incontinent. Discharged to return to his home for Christmas holidays.

January 15, 1926—Patient returns to hospital for re-examination. He says he is able to walk several city blocks without assistance, and that the numbness has disappeared from his trunk and lower extremities. He states that he has regained complete vesical and rectal control, being troubled only by occasional urinary urgency. He walks into the clinic with an almost normal gait. There is a very slight suggestion of spasticity in the lower limbs. Pupils are equal and react promptly to light and in accommodation. Extra-ocular movements are normal. There is no nystagmus. The ocular fundi are essentially negative. There is no evidence of disturbance of function of the cranial nerves. Upper extremities are normal. There is no atrophy of the muscles of the lower extremities. Knee and Achilles jerks are over-active, about equally so on the two sides. There is plantar flexion on the right but a positive Babinski reflex on the left. Tendo-Achilles tenderness is present and about normal. There is no impairment of sense of motion and position in the toes. There is double ankle clonus, abortive on the right, sustained on the left. No Romberg sign is obtained. Sensation is normal over the face, trunk and extremities.

The marked improvement in this case commencing so soon after the removal of a definite focus of infection in the teeth is strong presumptive evidence of the etiologic relation of the infectious focus to the condition in the spinal cord. This viewpoint seems all the more certain in the absence of other possible causative factors. The subsequent course of the affection would appear to bear out the original assumption as to its etiology. The tonsils cannot be considered a source of infection in this case as the improvement had progressed to a marked degree before their removal.

The case is instructive in that it appears to substantiate the belief that focal infectious areas may give rise to localized inflammatory disorders of the spinal cord, and that removal of such areas may cause prompt amelioration of symptoms arising from the cord lesion.

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PUBLIC HEALTH ACTIVITIES

Edited By

MICHIGAN DEPARTMENT OF HEALTH

STANDARDS OF POTENCY OF TOXIN-ANTITOXIN MIXTURE

Physicians and health officers who used any considerable quantity of toxin-antitoxin mixture which was purchased from a contractor and distributed free by the Michigan Department of Health, have taken note and in many instances have made inquiries as to why the product manufactured and distributed by the Michigan Department of Health showed somewhat greater reactions.

The standards for safety and potency for toxin-antitoxin mixture are set up by the Hygienic Laboratory of the United States Public Health Service, and all toxin-antitoxin mixture distributed in interstate commerce is tested and released by the Hygienic Laboratory. This gives a double control for safety and potency of the product, the initial test, of course, being run by the manufacturer. The standards now in force are delineated and explained in the following letter from Dr. G. W. McCoy, Director of Hygienic Laboratory:

Referring to your letter of March 14th regarding toxin-antitoxin mixture, the minimum toxicity of the product is practically as it has always been since the adoption of the standard in 1919. With increased experience, however, (since the first of the year all commercial lots are tested at the Hygienic Laboratory) it has become apparent that the lots generaly tend to be too low. It is also now evident that the mixtures for human injection may be used much more toxic than those previously used and that, to some extent, the immunity is greater with more uncombined toxin. We are therefore advising the manufacturers to aim at a somewhat higher potency than that previously considered as the average mean and have suggested that the ideal toxicity of toxin-antitoxin mixture should be such that when 5 human doses of the sample, as ready for human use, are injected into each of 5 guinea pigs weighing 300 grams, 2 of these 5-dose guinea pigs shall die acutely in 4 to 10 days and the other three shall die of diphtheria paralysis in from 15 to 35 days.

Of 5 pigs each receiving one human dose one should die of diphtheria paralysis in from 15 to 35 days and the other 4 should survive. As permissible variations from this toxicity, guinea pigs may be used weighing from 250 to 350 grams, the weights being scattered through this range for any set of guinea pigs on the same dose. Of the pigs on 5 human doses from 4 to none may die acutely, more than 50 per cent of the remaining pigs dying of paralysis, and the pigs on one human dose 3 to none may die of paralysis, the remainder surviving. Pigs dying with other conditions than diphtheria poisoning (acute or paralytic) shall not be counted.

Our 1919 specifications give the weights of guinea pigs as the usual diphtheria weight of 250 grams; it has been generally understood by most laboratories that as specified in Hygienic Laboratory Bulletin No. 21 the variations from this were from 250 to 280 grams; we found, however, that for toxin-antitoxin mixtures some manufacturers were using pigs lower than 250 grams. There appears to be little change in the susceptibility of guinea pigs of the higher weights of this range while guinea pigs below 250 grams are altogether too susceptible.

For the prolonged period of observation required for the testing of toxin-antitoxin mixtures the lower weight pigs in some cases are likely to die with conditions which cannot be definitely determined as diphtheria paralysis, hence the heavier pigs are more desirable.

It has been suggested that adults be omitted from immunization programs; we think this is better than to reduce the potency of the mixture. We have seen nothing to alter our view that the reactions in adults are due, not to diphtheria toxin as such, but to other material, presumably protein, in the broth. If the immunization fails to immunize so that we get diphtheria outbreaks in presumably protected groups more harm will be done than by an occasional reaction which seems to be more likely to occur in those giving pseudo Schick tests.

Since all lots are now tested at the Hygienic Laboratory, the limits of potency tolerated are not so important to the manufacturers as the ideal at which they should aim; in different laboratories it is obvious that absolute toxicity tests will vary considerably, usually in one direction, one laboratory getting results consistently higher, for example, than another. The laboratories are informed in which direction their products tend, on the basis of our tests, and subsequent lots are made up with this tendency in mind.

During the period when the State of Michigan was purchasing its biological products, it was found necessary to test each and every lot purchased to determine the potency of the product. When these biologicals pass from one organization to another and are stored for a period of time, it is quite possible that slight variations in composition, due to different physical conditions, may arise. Furthermore, borderline products which just meet the minimum requirements have been delivered to the department and on storage have lost their potency. Products which, during the process of manufacture, were just within the law or just under the minimum requirements have been repeatedly delivered to this department for distribution. Several lots of toxin-antitoxin mixture, which were too low in toxicity and potency, evidently having deteriorated after they were tested by the Hygienic Laboratory, were delivered to the State of Michigan.

During the life of our contracts with the biological firms, it was necessary to dispense

several lots of toxin-antitoxin mixture that were just within the minimum requirements specified by the Hygienic Laboratory. These lots gave practically no reactions in individuals of school age or under. A characteristic protocol of one of the lots purchased, when compared with the requirements of the Hygienic Laboratory, will illustrate this point:

GUINEA PIG INOCULATION

1. Date of Test	Dose	Day of Death	Condition During Test	Autopsy
1-22-25	5 cc	28 days	Paralyzed 18th day	Toxemia
	5 cc	25 days	Paralyzed 20th day	Toxemia
	5 cc	25 days		Toxemia
	cc	27 days		Toxemia
	5 cc	11 days		Toxemia
	1 cc	Survived	Normal	No sign of toxemia
	1 cc	Survived	Normal	No sign of toxemia

2. Fermentation tubes inoculated from containers show no growth at the end of 7 days.

The expense of testing toxin-antitoxin is practically the total cost of production, with the exception of the containers. It was determined to manufacture our own products, so we could always furnish toxin-antitoxin mixture which would be of maximum potency. The following protocol, which is typical of all of the 33 lots (each lot 20,000 doses) demonstrates that our product not only meets the requirements of the Hygienic Laboratory, but that it is ideal as to toxicity and potency:

GUINEA PIG INOCULATION

1. Date of Test	Dose	Day of Death	Condition During Test	Autopsy
1- 5-26	5 cc	4 days		Toxemia
	5 cc	9 days		Toxemia
	5 cc	3 days		Toxemia
	5 cc	4 days		Toxemia
	5 cc	4 days		Toxemia
	1 cc	Survived	Normal	No sign of toxemia
	1 cc	Survived	Paralysis 20 days	No sign of toxemia
	1 cc	28 days	Marked loss in weight	Toxemia
	1 cc	Survived	Normal	No sign of toxemia
	1 cc	Survived	Normal	No sign of toxemia

2. Fermentation tubes inoculated from filled containers show no growth at the end of 7 days.

It is now a well established fact that it is the toxoid fraction of the toxin-antitoxin mixture which produces the paralysis in the guinea pigs which are treated with one human dose. The same toxoid fraction is responsible for the immunity which is established in the individuals being treated. Consequently, it is necessary to have a certain amount of toxoid fraction sufficient to cause paralysis in the one c.c. pigs before one can expect any great percentages of individuals to become immune after three doses of toxin-antitoxin. This fact has been demonstrated by re-Schick testing groups of children having received three doses of the product which barely came within the federal requirements as compared with the groups treated with toxin-antitoxin prepared by the Michigan Department of Health. The Michigan Department of Health toxin-antitoxin showed 20 per cent more children immune after three inoculations of the mixture than remained immune by the product purchased from the contractor.

As suggested above, more than half a million doses of toxin-antitoxin mixture prepared by the Michigan Department of Health have been given to children with no untoward results. The Michigan Department of Health toxin-antitoxin will immunize 80 to 90 per cent of children susceptible to diphtheria when three 1 c.c. doses are given.—C. C. Y.

AN EPIDEMIC OF SCARLET FEVER MOST PROBABLY DUE TO MILK CONTAMINATION

On February 15, Dr. Guy H. Frace, health officer of St. Johns, a small town of about 3,000 population, telephoned the State Health Department that he had what appeared to be an alarming number of scarlet fever cases, which had all been reported within three days.

Up to February 12, there had been no cases of scarlet fever reported in St. Johns for a period of two months. From February 12 to February 15, fifty-nine cases were reported from forty-four families. The cases were in all age groups, from babies to adults, the ages ranging from one year to forty-five years. No one stratum of society was singled out—the rich and poor being attacked without distinction. Every school and religion in town had its quota of cases. No special section of the town seemed to bear the brunt of the attack.

As is evident from the above, it was a physical impossibility for persons from so diversified walks of life to have been attacked within a period of seventy-two to ninety-six hours through the ordinary contact with a previous case. It is obvious then that the infection must have been carried to the fifty-nine cases almost simultaneously. The suspicions of Dr. Guy H. Frace, Health Officer, and the investigator from the State Department of Health were directed toward some common article of diet that might convey the organisms of scarlet fever.

After a careful and detailed investigation of each case by the writer of this article, in which printed blanks were used to obtain the information, it was shown in a most striking way that there was just one factor common to all the cases (with the exception of one)—the milk supply. Other milk products were carefully investigated, but there was no uniformity in the different makes used.

The milk supply under suspicion is bottled at a receiving station by hand; there is no pasteurization plant and the sanitary conditions of the dairy are not of the highest. Milk is obtained from four producers living in the surrounding country. The farms of the four producers were visited and a careful survey made of the sanitary conditions of the homes; also the barns in which cows were kept. The farmers, their families and their help were closely questioned as to the presence of sore throats, running ears, suspicious rashes, etc., without eliciting anything of a positive nature. Samples of milk were obtained from each farm and examined for evidence of gross contamination, in the Michigan Department of Health laboratories. The reports for three of the four samples were excellent, giving as low a count as 4,000 bacteria per cubic centimeter. However, the report on the fourth was bad, there being 350,000 bacteria per cubic centimeter with evidence of hemolytic streptococci. Suspicion was then aroused that this might prove to be the source of infection, but as a further report showed these streptococci to be of the bovine type which do not produce scarlet fever in human beings, it was necessary to look for some other cause.

Throat cultures were taken from all producers and their help as a routine procedure. It is of interest to note here that the wife of one of the farmers was proven to be a carrier of virulent diphtheria organisms.

At the same time we were also investigating the family of the owner of the milk station with the following results: The daughter of the dairyman came down with scarlet fever on the 12th of February and milk was sold from the dairy, which is adjoining the residence, up to February 14. It was apparent, though, that the original contamination was not from this child, as she came down at the same time as the first few cases in town.

Mr. A, the owner of the station, claimed at the beginning of the investigation that he had only one helper in his dairy. Both he and his helper were closely questioned as to history of any recent sore throats or skin eruptions, without any results.

It seemed as if it were a hopeless task to try to find what had contaminated the milk supply at its most vulnerable point; that is, at the receiving station where the milk is handled and bottled in its raw state. Fortunately, however, it was brought to the attention of the health officer and investigator that Mr. A had three helpers instead of one as he had stated. The withholding of this information on the part of Mr. A seemed suspicious and worthy of further investigation. The additional two boys were closely questioned and one readily admitted that on February 5, 6 and 7, he had had a sore throat, but at no time a rash. Throat cultures were also taken from these two boys and hemolytic streptococci were obtained from the culture of the one with a sore throat. This boy washed the bottles and did other odd jobs around the station on February 5 and 6. On February 12, the first five cases occurred. There is no doubt in the mind of the investigator that this boy was the cause of the epidemic of scarlet fever. The close relation between streptococcic sore throat and scarlet fever is well known.

The great possibilities of contaminating a raw milk supply in a plant in which no precautions are taken can readily be seen. There were only two milk supplies of any size in St. Johns —Mr. A's, the suspected supply, and Mr. B.'s. Mr. A sold 350 quarts daily and Mr. B 800 quarts daily. Fifty-eight of the fifty-nine cases occurred on Mr. A's milk route, and only one on Mr. B's. The majority of cases were among children who naturally consume the most milk. The adults who contracted the disease were milk drinkers.

The danger of drinking raw milk which is not properly supervised and controlled is strikingly brought out in the investigation of this epidemic and demonstrates the absolute necessity for proper pasteurization.—C. H. B.

VIOLENT DEATHS

According to the International List of the Causes of Death, the group No. XIV is termed "External Causes." Dr. Matthias Nicoll, Jr., now Commissioner of Health of New York State, once commented: "You statisticians have a language all your own. I suppose if someone swallowed a carbolic cocktail you would call that an 'External Cause'?" Upon being assured that it would be regarded as an "External Cause," he remarked: "I'd call it damned intérnal."

First considering the question of suicides, the years 1924 and 1925 were almost exactly even, 496 deaths being certified to this cause in 1924 and in 1925 there were 495. There was quite a marked change in the forms used, however. In suicide by corrosive substances (this would include a "carbolic cocktail") there were 73 in 1924, but only 53 in 1925; whereas the use of poisonous gases increased from 35 in 1924 to 48 in 1925. The most common cause was by the use of firearms which increased from 138 in 1924 to 154 in 1925. Suicide by hanging or strangulation was the second most important means, but showed a decrease from 116 in 1924 to 112 in 1925. Among the other means employed was suicide by liquid or solid poisons, 46; suicide by drowning, 28; suicide by cutting or piercing instruments, 34, a decrease of 11 from the previous year; suicide by jumping from high places, 7; suicide by crushing, 3; other forms, 10.

Suicide as a rule is indicative of the indus-

trial prosperity of a community. It is found that in times of industrial depression there is an increase in the number of suicides.

In homicides, as in previous years, homicide by gunshot was by far the most important cause. To this cause were assigned 219 deaths as compared with 218 in 1924. Homicide by cutting or piercing instruments accounted for 52 deaths, a decrease of 12 over the preceding year and homicide by other means included 42 deaths, a decrease of 1 over 1924. There were also 3 deaths assigned to infanticide as compared with 4 in 1924. This was a total of 316 homicides as compared with 305 in 1924.

In the consideration of this item, it must be borne in mind that this does not necessarily mean murders, as a justifiable homicide such as the shooting of the notorious "Dutch" Anderson by Detective Hammond at Muskegon, as well as the killing of Hammond were included in this item.

The other violent deaths include all forms of accidents and there were 3,381 deaths assigned to this cause. The most important from any viewpoint were the 964 deaths due to automobiles; to this must be added 75 deaths as the result of railroad and automobile collision and 54 as the result of street car and automobile collision. This makes a total of 1,093 deaths in which an automobile was involved, as compared to 995 in the preceding year.

Any thoughtful person must wonder where this is going to stop. It seems that there should be some protection afforded those persons who are inclined to be careful in the use of automobiles. The death list is steadily mounting and is now far in excess of any other cause of violent deaths. When it is considered that railroad accidents numbered only 180 and street car accidents only 67, it must be realized how enormous is this tax on human life. The railroad accidents decreased from 216 to 180 and street car accidents, including interurbans, decreased from 89 to 67. This is certainly a very satisfactory showing. In the further consideration of vehicular accidents there were 12 assigned to airplane and balloons, 7 to motorcycles, 41 to other vehicles and 58 to other forms of crushing, such as landslides.

The second most important group of accidental deaths was due to falls. This showed an increase of 82, from 520 in 1924 to 602 in 1925. A very large percentage of these deaths is from falls that are trifling in themselves, but with old people become serious, frequently resulting in a broken femur that refuses to heal.

There was a decrease of 18, from 61 in 1924 to 43 in 1925, in deaths due to burning in conflagrations, which includes burning buildings, forest fires; but there was an increase from 204 in 1924 to 230 in 1925 of deaths from accidental burns, including scalds.

Accidental drownings show an increase of 17 deaths from 307 in 1924 to 324 in 1925. The increased popularity of bathing and the apparent recklessness of some of our young people undoubtedly accounts for this increase.

There was a satisfactory decrease of 22 deaths from the accidental discharge of firearms, decreasing from 97 in 1924 to 75 in 1925.

A sharp increase, however, is shown in accidental traumatism by machines, deaths from which almost doubled, increasing from 49 in 1924 to 92 in 1925.

Considering the comparative coolness of the summer of 1925, it is surprising to note that the deaths due to excessive heat, sunstroke, increased from 13 in 1924 to 53 in 1925, the number being almost four times greater. It is difficult to account for this showing.

Lightning accounted for 10 deaths, just double the number in 1924 and deaths from other accidental electric shocks increased from 37 to 51.

As a whole violent deaths were responsible for 4,192 deaths, or 8½ per cent of the total number of deaths from all causes. This is higher than it should be. It is generally regarded that violent deaths should not exceed 8 per cent. It is not the purpose of this story to comment particularly on this subject, but simply to present the facts, but it does seem essential that serious thought be given to a better control of vehicular traffic and that greater care be exercised in the protection of our roads from incompetent and irresponsible drivers.

—W. J. V. D.

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health

February, 1926

	+	—	+—	Total
Throat Swabs for Diphtheria				1457
Diagnosis	40	661		
Release	121	216		
Carrier	19	386		
Virulence Tests	9	5		
Throat Swabs for Hemolytic Streptococci				1105
Diagnosis	327	372		
Carrier	84	322		
Throat Swabs for Vincents	15	682		697
Syphilis				6051
Wassermann	14	32		
Kahn	1065	4841	97	
Darkfield	1	1		
Examination for Gonococci	178	1681		1859
B. Tuberculosis				606
Sputum	104	483		
Animal Inoculations	2	17		
Typhoid				173
Feces	27	76		
Blood Cultures	1	19		
Urine	1	16		
Widal	7	24	2	
Total for the Month				14824
Cumulative Total (fiscal year)				142976
Decrease over this month last year				10913
Outfits Mailed Out				13241
Media Manufactured, c.c.				589640
Diphtheria Antitoxin Distributed, units				22283000
Toxin Antitoxin Distributed, c.c.				57450
Typhoid Vaccine Distributed, c.c.				1353
Silver Nitrate Ampules Distributed				12364
Examinations Made by Houghton Laboratory				1810

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PUBLICATION COMMITTEE
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J. D. Bruce.....Ann Arbor

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APRIL, 1926

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

OUR IDEALS—THE FUNCTION OF OUR COUNCIL

In these days of the multiplicity of medical organizations and medical meetings it may be worth while to pause now and then to take a survey of the situation and ask ourselves for what are we striving and what our success is in the activities of medical organization. It has seemed to me that the highest ideal which we may place before ourselves in the work of medical organization is the improvement of the standards of medical practice. Our aim should be to become better doctors—to render better service to those whom we serve. Everything which promotes this ideal is the concern of medical organization. To place before ourselves any less worthy motive is both unethical and unwise. The material prosperity which the medical profession enjoys will bear a rather definite ratio to the standard of service which it renders. Individual experiences may tend to refute this statement, but when we consider the profession as a whole I believe that it is true.

Much of the prevailing lack of confidence in the profession is justly merited. I make this statement to you as physicians and I think it cannot be gainsaid. In this respect we are not in any way different from other professions. There are good and bad dentists, good and bad engineers, good and bad lawyers. The medical profession, I believe, represents as high a type of intelligence and training as any of the great professions. In spite of this we should be lacking in wisdom if we fail to recognize our own shortcomings and conscientiously strive to overcome them.

In such a discussion we must lose sight of ourselves as individuals and consider the profession as a whole. To be sure, each of us, as an individual, has his own problems which he must meet and solve, but it is with the profession as a whole that we must deal in discussing problems of medical organization. And so I repeat that much of the prevailing lack of confidence in the medical profession is justified by our shortcomings. If a doctor is a rascal or is mentally deficient or improperly trained and makes a mess of medical practice it affects the confidence of the public in the whole profession and indirectly our own standing with our patients. For this reason, the improvement of the standards of medical practice is not merely a program of altruism. The more good doctors there are in Michigan—the more intelligently disease is recognized and treated throughout the state, the more we as a profession shall deserve and receive the confidence of the public and the less they will turn to fads and cults. I am sure that there are those here who will disagree with this proposition. They see their intelligent and educated friends and neighbors following after chiropractic and Christian Science and feel that medical training and skill is unappreciated by the public. Again I say that we must look at this from a group standpoint rather than as individuals. If you, as an individual, with your intelligence and training and constant seeking after knowledge, could feel that the medical profession as a whole practiced medicine on the same high plane as yourself, you might feel offended with your friend and neighbor who follows after the various systems of irregular practice. *But the trouble is,* that there is too much incompetence within the profession and this appears to me to explain the lack of confidence on the part of the public.

From this I return to the original proposition that the highest ideal which organized medicine may place before itself is the improvement of the standards of medical practice. In attaining this and in its achievement we shall include practically all of the ends and aims which we ordinarily consider in any statement or the purpose of medical organization.

I believe the Council of the Michigan State Medical Society has had in mind to an increasing degree this conception of the function of medical organization. It has been my pleasure to have had a continuous service of nearly nine

years as a member of your Council. On account of this seniority in point of time, it has been my further pleasure to serve for the last three years as Chairman of this Council. During these years I believe the members have had an increasing appreciation of the responsibilities and services which they owe to medical organization.

It is the duty of each Councillor to interest himself in the activities of the various County Medical Societies in his district. At the present time most of the members of the Council are rendering a real service and taking a genuine responsibility for the activities of the County Societies under their jurisdiction.

The Council as a body meets regularly twice a year, at the time of the annual meeting of the Society and in mid-winter, usually January. The duties of the Council are set forth in the by-laws. In a general way it functions as the executive committees of the Society. The legislative function is delegated to the House of Delegates, which meets once a year. For the last two years we have had monthly meetings of the executive committee of the Council. This committee is made up of the Chairman of the Council, and the Chairman of each of the three standing committees, and the Secretary. These monthly meetings have served to keep the Council better informed as to the plans and activities of our secretaries and allowed the executive committee to more closely direct their work.

At the last meeting of the House of Delegates amendments to the constitution and by-laws were introduced by Dr. Hugh Stewart of Flint and by Dr. J. D. Brooks of Grandville. The purpose of these amendments was to take the election of the Secretary and the Treasurer and the Chairman of the Medico-Legal Defense Committee out of the hands of the Council and put this election in the hands of the House of Delegates. These amendments further provide that these officers shall be accountable to the Society through the House of Delegates. I should like to call your attention to the fact that if this change is brought about the House of Delegates thereby becomes the executive body of the Society, which function the present constitution places in the hands of the Council. It is my judgment that such a change would be very unwise. The Council, since I have been a member, has always been ready to carry out the wishes of the Society as expressed by the House of Delegates. But, the House of Delegates, by the very nature of its organization, is not in a position to assume the executive function now exercised by the Council.

At the annual meeting at Muskegon in September I set forth at the general meeting of the Society some of the activities carried out under the direction of the Council during the past year. This was published in the October number of the Journal. I shall not take your time tonight to repeat that report, but I would like to briefly mention some of the more important achievements. 1. Employed a full time Executive Secretary. 2. Increased membership in face of increase in dues. 3. Inaugurated and carried out a plan of post-graduate district conferences. 4. Carried out successfully a plan of legislative activity during the last session of the legislature. 5. A successful year in Medico-Legal Defense. 6. Co-operation of the Society with the other representatives of the Joint Committee on Public Health Education. 7. Publication of the Journal, which now stands in the forefront among State Journals. 8. Supervised and encouraged the work of Component County Societies.

Since the September meeting there are two other matters relating to the activities of the Council which I should like briefly to report.

There has been a growing feeling that there is a need in the state for further opportunity in the matter of post-graduate medical instruction. Our district conferences have, we believe, revealed a demand for this. At the Muskegon meeting a committee was appointed to take up this matter with Regent Sawyer of the University of Michigan and to suggest the development of such a post-graduate school in connection with our new University Hospital. This committee met with Regent Sawyer and Dean Cabot and the suggestion was favorably received. While no announcements have been made, it seems quite likely that in the not too distant future we may look for the beginning of such a post-graduate school.

The second matter to which I allude is a meeting held at Ann Arbor at the time of the January meeting of the Council at the suggestion of President Darling. The Council invited to this meeting the President of the University, representatives of the faculty of the medical departments of the University, the Detroit Medical School, the State Department of Health and the State Board of Registration. The purpose of the meeting was to promote harmony and unity of purpose among those various bodies having to do with medical practice. The meeting resulted in much frank and profitable exchange of opinion and will, we believe, serve well to carry out the purpose for which it was called. It was decided to hold another such meeting next year.

I think that I may well draw this discussion to a close. I hope that in presenting this matter I have not given you the impression that your Council is too much self-satisfied, we are not. We appreciate the fact that we have done imperfectly the duties that you have delegated to us. We have no excuses to offer except that wherein we have failed, the failure has been due to the frailties of human judgment and the limitations of time available for this work.

The Council is a representative body. It is

our desire to carry out the wishes of the majority of the members of the State Society. We welcome suggestions and constructive criticisms. We believe that the present method of organization of the Council is a good one. The personnel of the Council is determined entirely by the Component County Societies. No one man or group of men is in a position to control the activities of this body. I believe that the men who now serve you in the capacity of Councillors are disinterestedly striving to obtain for our Society that worthy goal to which I referred in the beginning of this discussion —the improvement of the standards of medical practice.

J. B. Jackson.

MINUTES OF THE MARCH MEETING OF THE EXECUTIVE COMMITTEE COUNCIL OF THE MICHIGAN STATE MEDICAL SOCIETY

1. In compliance with the motion adopted at the February meeting of the Executive Committee, the March meeting was held at the Book-Cadillac Hotel in Detroit on March 2, at 3 p. m., with the following members present: Chairman, J. B. Jackson, R. C. Stone, F. C. Warnshuis, H. C. Smith. There was also present, President Darling, and Councillor Charters.

2. Dr. F. B. Tibbals, Chairman of the Medical Legal Committee, reported the progress that was being made by our attorneys in the matter of the Battle Creek suits for libel.

3. The Secretary submitted opinion of an attorney relative to amendments of our Articles of Incorporation. The Secretary was instructed to ascertain in what manner it would be possible for the Society to receive endowment funds.

4. The Secretary announced that President Darling had appointed Dr. J. G. R. Manwaring as Vice-Speaker of the House to fill the vacancy in that office.

5. The Secretary reported that the mail vote of the members of the Council, relative to the distribution of the Periodic Health Examination Manual, had been approved by each member of the Council and that the expenditure entailed would be one of the State Society. The Secretary was instructed to order the Manuals and cause their distribution through County Secretaries.

6. The program for the County Secretaries' Conference was discusesd, and President Darling and Chairman Jackson were directed to write to each member of the Council urging that they not only attend this Conference of County Secretaries, but that they also secure the attendance of the Secretaries of their Councillor districts.

7. In accordance with the arrangement made, Chairman of the Council, Dr. Jackson, R. C. Stone, President Darling, and Secretary-Editor F. C. Warnshuis met with the members of the Wayne County Medical Society in their regular meeting in the Wayne County Medical building at 8 p. m. The program consisted of a discussion of the activities and problems of our State Society, and the members of the Wayne County Medical Society were informed as to the extent and scope of activities that were being engaged in by the State Society.

F. C. Warnshuis, Secretary.

EDUCATION IN YOUR RECEPTION ROOM

If one casts about there will be perceived an awakening on the part of doctors to their responsibility of educating the public as to the benefits of modern scientific medicine for the prolongation of life and prevention of ills. By means of lectures, health talks, clinics and individual conferences the people are being educated; progress is being made. There is still room for greater and extended progress. There is need for more teachers. There is a demand for more doctors to engage in the work and every legitimate means should be employed.

Your reception room can and will serve as an efficient agent provided you will resort to the means that will make it a factor in the education of the people. These means consist of having on your reading table copies of Hygeia, "Quacks and Nostrums" and similar literature that will instruct your patients while waiting to consult you. Adorn your walls with pictures of men who made important medical discoveries or who achieved greatness because of public service. Label such pictures with names and a brief description as to their life achievement and claim for honor. Thus make the names of Pasteur, Lister, Osler, Banting, etc., mean something to the people. Educate them as to how these men made possible medical progress. Tabulate the epochal periods of our progress.

If every reception room of doctors were to be so utilized there would result a mighty movement of education in medical affairs. Its results would speedily be apparent. We proffer this suggestion for your consideration. Our reception rooms can be made to be a mighty convincing factor and teacher in health education. Will you enroll yours to so attain?

HYGEIA

Hygeia, published by the American Medical Association, and endorsed by our House of Delegates, is the profession's publication for disseminating to the people facts regarding scientific medicine and the service doctors render to the people. As such it is a missionary

working for the individual doctor—*you.* It is refuting for you the false claims of quacks and cultists. It is educating your patients as to medical truths. It is telling your patients facts regarding the service you can render. For these personal reasons every doctor should lend ready and cordial support to Hygeia.

Hygeia should be on every doctor's reception room table. Every doctor should recommend Hygeia to their patients as a publication that will impart reliable, authentic medical information.

The American Medical Association has sent into Michigan representatives who will call on our members. They will first solicit your subscription and then they will interview your patients whom you recommend as prospective subscribers. We earnestly recommend that you accord this support. As a doctor you, too, can gain much valuable information from the contents of each issue of Hygeia. In addition you also will derive personal benefit by reason of Hygeia's lay educational influence.

HYGEIA NEEDS YOUR SUPPORT

Hygeia is the profession's agency for transmitting to the public, in lay terms, facts regarding scientific medicine and therapeutics. It is our educational organ. It points out truths and exposes fallacies. It enlightens the individual as to the preservation of his health and reveals to him how he can conserve his health by observing the rules of right living.

Hygeia enlightens the public as to the false claims of cultists and quacks.

Hygeia aids the doctor by educating the public. Hygeia merits the support of every doctor. It should be on your reception room table. You may well send it to some of your friends or to a local public reading room or library.

We are seeking greater support for Hygeia by Michigan doctors and are endeavoring to cause a wider circulation among the people of Michigan. To do this we need your help. We want every doctor to have a copy of Hygeia in his reception room. Also, we want each member to secure one, or, if possible two lay subscribers. Will you help us to accomplish this?

We are inserting a subscription blank in this issue. We ask first that you subscribe yourself. Second, secure the subscription of one or two lay persons whom you know. Fill out the blank, send it to the Editor, Powers Building, Grand Rapids, Mich.

If we can have your help in this, if every member will secure these subscriptions, then with some five thousand copies circulating in the state each month, far reaching strides will be made in educating Michigan's public and refuting the representations of cults and quacks. Will you so aid? Fill out the enclosed blank and send it in today. Here's an opportunity for rendering personal service.

ANNUAL MEETING SEPTEMBER 15-16-17TH

Ingham County, our hosts for our Annual Meeting, is concerning itself with perfecting arrangements for our Annual Meeting. President Seger has appointed the following Committees:

Publicity Committee—Dr. DeVries, Chairman; Dr. Cushman, Dr. Barthelmew, Dr. F. Jones.

Session Halls and Meeting Places Committee—Dr. Carr, Chairman; Dr. Gardner, Dr. Owen, Dr. Olin, Dr. Towne.

Registration Committee—Dr. Wiley, Chairman; Dr. H. Miller, Dr. Wight, Dr. P. C. Strauss, Dr. Welch.

Hotels and Room Accommodations Committee—Dr. Christian, Chairman; Dr. Hart, Dr. Freeland, Dr. D. Snell, Dr. Gauss.

Entertainment Committee—Dr. Drolett, Chairman; Dr. McIntyre, Dr. McNamara, Dr. Breugal, Dr. Niles.

Reception Committee—Dr. Davey, Chairman, Dr. Osborn, Dr. Haze, Dr. Barthelmew, Dr. Ellis.

Automobile and Parking Committee—Dr. Weinburgh, Chairman; Dr. Randall, Dr. F. Huntley, Dr. Brucker, Dr. McCrumb.

Editorial Comments

In persuance of our endeavors through these columns calling attention to the importance of giving prompt notice of any event or occurrence that may lead to a claim or suit, or threats of blackmail claims or suits, it is deemed timely and necessary to state the following information which should be of vital interest to every professional man, viz:

The principal condition precedent to insurance and defense under indemnity policies now being issued by insurance organizations specializing in this class of protection is that "The policyholder shall as soon as possible notify the insurance organization and state in writing full information regarding the particulars." Failure to comply with this condition, at the option of the insurance organization, voids the indemnity and defense under the policy.

Thereby is evidenced the importance of giving notice and forwarding information at the earliest possible time, not only of the suit being threatened, but of the trouble in its inception. The sending of such notice relieves the policyholder from any technical responsibility under the policy as regards the matter upon which notice has been sent and it then becomes incumbent upon the insurance organization to take charge of the matter and assume the responsibility.

While thereby is also evidenced from the standpoint of the insurance organization, the importance of receiving prompt notice and information of any trouble at the time of its inception, in order that the insurance organization may have the opportunity of investigating the matter before the pa-

tient interviews a lawyer or makes trouble in other directions, such as attempts to discredit the ability of the doctor in his community. Nevertheless, this same condition applies as being valuable co-operative aid to our Legal Medical Committee for the same purposes. Prompt investigation of the trouble when it first commences and possibly a Medical Examination of the person claiming to have been damaged, will give the opportunity of discouraging the bringing of a lawsuit.

Early investigation should provide valuable evidence in defense or compromise of a claim or suit for damages. Getting there quick and first ahead of the lawyer is the answer from every standpoint as being most beneficial. To illustrate this subject clearly we cite the following:

Recently, a physician in reporting a claim stated as follows: "This is to acquaint you of a threatened suit against me for work done about one year ago . . . . During a tonsil operation I accidentally removed the uvula."

It is apparent from this notice that the doctor admits an accident occurring about one year previous. The very fact that he admits the accident and not having sent notice at the time of the accident automatically releases the insurance organization, if it is inclined to deny liability. The doctor should have notified the insurance organization at the time of the accident. By doing so the matter could have been investigated and probably disposed of. Now he is threatened with a lawsuit, a lawyer having appeared on the scene.

Therefore, your attention is again called to the necessity of sending prompt notice not only of a threat to sue, but of any event or occurrence that may lead to the arising of a claim or suit. Such notice should be promptly sent not only to the Legal Medical Committee, but also to the insurance organization if you are carrying such protection.

"I don't want any literature on my reception room table that will educate any person on medical subjects." Such was one doctor's remark. Another was—"My people are too dumb to understand medical facts." Both of these statements are subjects for a lengthy discourse. The first man fails to recognize that the public is reaching out eagerly for reliable medical facts and when possessed of them they seek the advice and aid of the progressive man who no longer seeks to hoodwink them with mysticisms and bambost. The second man should become busy to educate his people. Impart to them medical truths. His practice and his end results will be bigger and better. With the attitude above revealed is it any wonder people go to the irregulars? Is it any wonder some men are in a rut? Yet these very men holler louder and longest about public opinion. We invite doctors of such mind to join in on our work of public education and to not obstruct progress by their narrowed attitude.

Hospitals are no longer institutions run by doctors. The field and function of a hospital has materially broadened and the hospital assumes a social obligation very closely related to the community's welfare. Its management is therefore one of community interest and concern and lay leaders are taking over control and assuming responsibilities of business administration as well as medical staff services. The type of medical and surgical care is being appraised and staff appointments are being made on that basis. Hospital administration is being taken out of the profession's hand just as was the administration of our medical colleges. Medical politics and personalities will thereby be removed and our relationship will be the rendering of professional services that meet up to a standard of requirements that is being established. The result will be a betterment of hospital service in the same degree as our medical colleges were elevated and benefited.

While sitting in the office of a representative medical man in a neighboring city we were interested in the patients awaiting their turn to consult the doctor. The reception room was comfortably furnished. On the table were copies of popular magazines of good selection. Three patients came in in turn and when they perceived that they had to wait walked up to the table, scanned the array of magazines and each one independently, selected a copy of Hygeia, of which there were several back numbers, sat down and commenced reading it. This observation evidenced again that the public is eager for reliable medical information. Hygeia imparts such information and establishes our profession in a better light before the public, thereby benefiting the doctor and the doctor profits. Do you need any further argument as to why you should subscribe to Hygeia, or why you should induce your patients to subscribe?

The outstanding factor that obstructs imparting to the public facts regarding scientific medicine and the profession itself is the individual doctor. There are far too many doctors who assume the role of self sufficiency and feel that their word or statement should be accepted unquestioned. They know, that is sufficient. That may have been the proper attitude fifty or two thousand years ago, but today it simply won't do. People want facts, they want to know. Supply them with facts and truths and they will be governed accordingly. Try and withhold facts and immediately they question, become skeptical and look upon you with doubts and misgivings. The sooner doctors realize this, the sooner they impart informative, dependable knowledge, the sooner will our public relations become enhanced. Think it over. Then get behind and help our several activities that are being directed toward public education in regard to scientific medicine.

County Secretaries met in annual conference on March 30th. These officers gave from one to two days of their time to plan for organizational work for the individual—your—doctor's benefit. They can outline plans, but results are dependent upon the support you subscribe. It isn't fair to sit back, profit by the results and let your local Secretary do the work. Help him, render assistance to him for he needs your support. Don't be a "sit and go" member. To sit through a meeting and then go and not enter into the discussion or contribute some time and effort to advance outlined plans stamps you as a pretty poor member. What we want is help. As your Secretary presents the plan of work at your next county meeting, tender your support and help him. You will benefit far in excess by the results obtained and you will be acquitting yourself of personal responsibilities.

Recently a pamphlet was published on "Standardizing on Sizes and Makes of Hypodermic Syringes and Needles" which contains a large amount of information valuable to all practicing physicians.

It gives many suggestions as to the gauge and length of needles and the size of the syringes which are generally used for the various operations, which conclusions were reached after consultation with some of the foremost surgeons in the country.

There are also many notes regarding the care and sterilization of needles and syringes and the pamphlet also outlines the comparative merits and cost of steel, nickleloid, gold and platinumiridium needles.

Any physician interested can secure a complimentary copy by writing to Becton, Dickinson & Co., Rutherford, N. J.

Yes, we fully realize you have had a hard winter. You've been tired and well, you just didn't feel like going to a meeting or doing any committee or society work. It's easier driving now, you can shed the galoshes and the flannels. Unless you loaded up on pork and beans, the kinks ought to be out of your back and a feeling of "pep" permeating you. In place of expending this "pep" idly, subscribe it to your Society. Get behind the year's program and help put it over big. Make your membership mean more and as you invest in it so will your dividends increase. Take up your pen, or pull out the typewriter and write us what you are thinking about or what you'd like to see accomplished. We invite your opinions.

Under terms of a gift, there was provided an Orthopedic Lectureship which is supervised by the Lectureship Foundation Committee of the Wayne County Medical Society. One of the provisions of this specific gift was that each lecture was to be printed and distributed to societies, libraries and individuals. The first lecture was delivered by Robert B. Osgood, M. D., of Boston, on "The Evolution of Orthopedic Surgery." It was distributed in printed form this past month. By way of comment we commend it as the most interesting resume we have read upon the development and advancement of this special branch of surgery.

There are a goodly number of doctors who have paved the street in front of their offices, or who purchase and operate their automobiles with tonsils. The seriousness of tonsilectomies has been minimized by perfected technic. Many who would not undertake other operative procedures consider themselves as competent to remove tonsils. There are bad results and damage suits are increasing. The subject is discussed by Harris in the March 20th issue of the Journal of the A. M. A. He presents some pertinent figures and legal rulings rendered by courts. Those performing tonsil operations will do well to safe-guard themselves by heeding the warning sounded in this paper.

The Judicial Council of the A. M. A. has presented the following definition of contract practice: "By the term "Contract Practice" as applied to medicine, is meant the carrying out of an agreement between a physician or group of physicians to furnish partial or full medical service to a group or class of individuals for a definite sum or for a fixed rate per capita." This is a terse, pointed definition sufficiently clear to enable one to perceive when one violates the Principles of Medical Ethics.

The American Medical Association has prepared a valuable manual on "Periodic Physical Examination of Apparently Well Individuals." The manual imparts much that is helpful to the doctor making these examinations. The Council of our Society has purchased 3,000 of these manuals for distribution to our members. They will be distributed this month through the officers of County Societies. Watch your local meeting notices for the announcement.

Thanks to the activity of the Bureau of Legislation of the A. M. A., the Harrison Narcotic tax has been reduced to $1, the pre-war rate. Because of that peculiar trend of mind of legislators, who see only what they care to and who remain unmoved by all facts, physicians were denied the right to deduct from their income expenses entailed in attending medical meetings or post-graduate work.

The Council on Hospitals of the A. M. A. declines to approve any hospital that admits to its staff a so-called drugless practitioner. Hospital trustees have been upheld, in every case taken to court, in their right to refuse staff membership to anyone whom they considered unqualified to care efficiently for sick or injured persons.

On March 2nd President Darling, J. B. Jackson, Chairman of the Council, R. C. Stone, Chairman of the Publication Committee and the Secretary met with the members of the Wayne County Medical Society in Detroit. The several features and functions of our Society work were presented and discussed by these officers.

There is still opportunity to secure hotel accommodations for the Dallas Meeting of the American Medical Association on April 19th. The announced program of the meeting is a most attractive and instructive one. Michigan should be well represented.

If you have not paid your 1926 dues, this is the last issue of The Journal that you will receive. Avoid suspension by remitting your dues to your County Secretary.

Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

Editor of The Journal:

I will be very glad to act as Vice-Speaker of the House of Delegates, knowing that the hours will not be long or arduous.

Yours sincerely,

J. G. R. Manwaring.

Our Society Business and Activities

HARVEY GEORGE SMITH
EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

POST-GRADUATE CONFERENCES

Two Post Graduate Conferences were held during March, one at Adrian and the other at Kalamazoo. The attendance at Adrian was 25, which places the Conference of the 14th District at the foot of the attendance column of all those organized to this date. In contrast is the Kalamazoo Conference, which was attended by 60 physicians, a large number of whom drove 40 and 50 miles.

The question that presents itself at the close of each conference is, "Why did not the other doctors of the District attend?" They pay their dues and the State Society is anxious to have each member receive the benefits that are due to each. The doctors who attend, register unanimous approval for the value of the Post-Graduate Conferences. Which group is advancing the science of medicine most, those who attend or those who do not? A useless question, perhaps, but in the mind of the layman pertinent.

The following programs were presented:

POST-GRADUATE CONFERENCE

City Hall, Adrian, Mich.

March 9, 1926

12:00—Luncheon—Lenawee Hotel.

1:30—"Subacute Bacterial Endocarditis."
F. N. Wilson, M. D., Ann Arbor.

2:00—"The Urinary Bladder."
C. F. McClintic, M. D., Detroit.

2:30—"Peptic Ulcer with Special Reference to Medical Management."
J. B. Youmans, M. D., Ann Arbor.

3:00—"Recognition of Valvular Lesions of the Heart, with Consideration of Treatment."
F. N. Wilson, M. D., Ann Arbor.

3:30—Recess.

3:40—"The Basis for Motor Disturbances in the Alimentary Tract."
C. F. McClintic, M. D., Detroit.

4:10—"Therapeutic Uses of the Quartz Light."
E. A. Pohle, M. D., Ann Arbor.

4:40—"Physical Examination and Laboratory Methods in Diagnosis."
J. B. Youmans, M. D., Ann Arbor.

Adjournment.

POST-GRADUATE CONFERENCE

Academy of Medicine Rooms—Library

Kalamazoo, Mich.

March 16, 1926

J. B. Jackson, M. D., Councilor-Chairman.

10:30—"Peptic Ulcer with Special Reference to Medical Treatment."
John B. Youmans, M. D., Ann Arbor.

11:00—"The Acute Ear."
A. C. Furstenberg, M. D., Ann Arbor.

11:30—"Feeding the Normal Infant."
Francis Duffield, M. D., Detroit.

12:00—Luncheon—New Burdick Hotel.

1:45—"Treatment of Empyema with Reference to Chronicity."
G. L. McWhorter, M. D., Chicago.

2:15—"Diagnosis of Hyperthyroidism."
Charles A. Elliott, M. D., Chicago.

2:45—"Physical Examination and Laboratory Methods in Diagnosis."
John B. Youmans, M. D., Ann Arbor.

3:15—Recess.

3:30—"The Use of the Seton in Repair of Ruptured and Torn Urethras."
G. L. McWhorter, M. D., Chicago.

4:00—"Infections of the Sinuses and the Throat."
A. C. Furstenberg, M. D., Ann Arbor.

4:30—"Treatment of Hyperthyroidism."
Charles A. Elliott, M. D., Chicago.

Adjournment.

REPORTS

The County Society News section of The Journal is providing records and accomplishments of the County Medical Societies. In the March number 16 Society Secretaries reported one or more meetings, which is larger than can be found during the past two years. Scientific meetings, abstracts of lectures and discussions, plans of work adopted, physical examinations, the Minimum Program for County Societies, scientific teams, itinerary of scientific meetings, social activities, Post-Graduate Conferences and attendance are among the transactions as recorded by the Societies. Secretaries are con-

gratulated for furnishing the complete reports and the memberships of the Societies are fortunate in having meritorious scribes filling the position of Secretary.

ORGANIZED HEALTH EDUCATION FOR HIGH SCHOOLS

November 19, 1925, Dr. Sinai, of the Extension Department of the University of Michigan, visited the Genesee County Medical Society for the purpose of calling their attention to the proposed program for Medical Education to be carried out in the high schools of the City of Flint.

Dr. Sinai is assisting Dr. Henderson, of the University of Michigan in the work of the Joint Committee on Public Health. The purpose of this program is to develop an instructive and interesting method of imparting information on medical subjects to specified members of the high school.

Selected groups of high school pupils are chosen constituting the classes in Physical Education and Biology. The various topics considered to be interesting to such groups are as follows: 1, Bacteria; 2, Accidents and First Aid; 3, Diet; 4, Digestion; 5, Heart, and 6, Health Habits. These are being presented over a five-months period, beginning in January, 1926, by five speakers selected from the membership roll of the Genesee County Medical Society, each being a specialist. The speaker presents some phase of his chosen subject four times.

This program has been carried out since the middle of January and is being met with much enthusiasm on the part of the students and seems to be an excellent method for producing better results than the more or less un-organized previous activities of the Joint Committee on Public Health.

There will be a re-organization for the following school year with more speakers and perhaps a greater variety of subjects.

Geo. J. Curry, M. D.,

Secretary Genesee County Medical Society.

Deaths

Dr. Stephen L. O'Brien, prominent Grand Rapids surgeon, past president of the Michigan State Hospital Association, and closely identified with Hospital administration in Grand Rapids, died Thursday evening, February 25th, following an illness of several weeks, and subsequent to a general break-down.

Dr. O'Brien was 36 years old, was born near Grand Rapids, received his professional training in St. Louis University, graduating from this institution in 1913. He had practised for the past 13 years in Grand Rapids, during which time he had established a warm friendship among the members of the Medical profession and had developed a well warranted respect from his large following of patients. He was the first Chief of Staff of St. Mary's Hospital, and was Chief of the Surgical Division during the past year. He organized the Free Clinic at this institution, and remained in



Dr. Stephen L. O'Brien

charge of it up to the time of his death. He was very active in the welfare of the city, and was one of the chief figures in the work of the Hospital Council. He was likewise an active member of the Kent County Medical Society, and numerous social and fraternal orders.

The medical profession of Grand Rapids, and more particularly the Staff at St. Mary's Hospital, feel a keen loss in the passing of Dr. O'Brien.

The following resolutions were adopted at the annual meeting of St. Mary's Hospital Staff held Thursday, March 4th:

RESOLUTIONS IN REGARD TO THE DEATH OF DR. S. L. O'BRIEN

WHEREAS, In the death of Dr. Stephen L. O'Brien, the staff of St. Mary's Hospital has suffered the loss of one of its charter members and its first chief, one who was not only a leader in staff activities, but also active in the promotion of personal friendship, and

WHEREAS, We, the members of the staff, individually feel our personal loss and, collectively realize how greatly Dr. O'Brien will be missed in our organization, therefore be it

RESOLVED, That the staff express its regret and sorow at the passing of our fellow member, Dr. O'Brien, and the untimely termination of a career of brilliant success and great usefulness, be it further

RESOLVED, That a copy of these resolutions be inscribed in the archives of the hospital staff records and that a copy be sent to the family of the deceased.

DR. C. E. MILLER PASSES BEYOND

Dr. Carroll E. Miller, one of the best known and best loved residents of Cadillac, passed away at 7

p. m., Wednesday, after an illness of more than a year. His illness first began with an attack of flu which left him in a weakened condition. He was confined to his home for about seven months and while he was able to be around at intervals since, he never regained his health. The last time he was at his office was a week ago Saturday. He was just worn out with a long lifetime of patient ministration and humane consideration for the scores of residents to whom he personified Science during periods of ill health.



Dr. C. E. Miller

Dr. Miller would have been 75 years of age had he lived until next Monday. He came to Cadillac 47 years ago next month, one of the first physicians to enter upon his professional career in this community which then was a new lumbering village. He arrived about one year after Dr. J. M. Wardell and during most of the past half-century he has been one of the vital factors in the life of Cadillac, watching the city thrive and develop from a lumber town to a prosperous city.

A physician has more than a casual interest in the community in which he lives, having a peculiarly intimate relationship with its residents. In this regard Dr. Miller was exceptionally fortunate as his merry disposition and friendly manner made confidantes of even his casual acquaintances.

Dr. Miller was born in Portland, Maine. He graduated from he Michigan Agricultural College in 1872, at which time he was awarded a B. S. degree. Later he was superintendent of schools at Neillsville, Wis., holding this office for four years. He was graduated from the Rush Medical College in 1879, and came to Cadillac the same month that he received his degree. He met and married Miss E. Alice Turner, at Augusta, Wis., in 1875.

The parents of Dr. Miller were well known in Cadillac. They were the Rev. and Mrs. C. C. Miller. The father died here in 1907 and the mother passed away here in 1914.

Many relatives survive the departed doctor, several of whom live in Cadillac. Two sons and one daughter are living: Dr. G. Devere Miller, Carroll Miller and Mrs. Howard Edgerton. Dr. Miller and Mrs. Edgerton live here, but Carroll is in Los Angeles, although his family still resides in Cadillac.

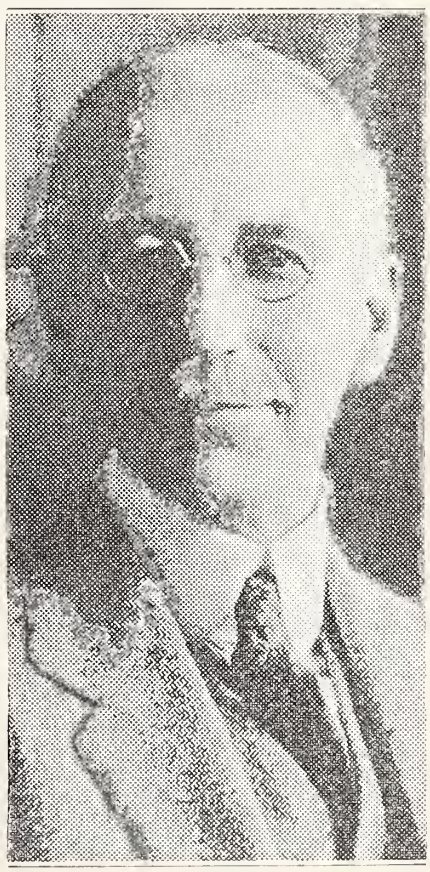
One brother, Judson L., is assistant postmaster here; another brother, Frank A., lives in Stanton; and Ashley G. Miller lives in Reno, Nev. A sister, Miss Jessie Miller, lives with her brother's family. Ashley and Carroll Miller will be unable to come for the funeral, but the others are expected.

Seven grandchildren and many nieces, nephews and other relatives, many of whom are known to Cadillac residents, are among the surviving relatives.

Dr. and Mrs. Miller celebrated their golden wedding anniversary January 1, 1925. Mrs. Miller is bearing up wonderfully under her sorrow, realizing that her beloved husband fulfilled his destiny in a manner which will keep his memory sacred.

Funeral services were conducted at the home, 426 East Cass street, Saturday at 2 p. m. by the family pastor, Dr. A. W. Johnstone. Interment in Maple Hill Cemetery.

Dr. Harry J. Hornbogen, Marquette, Michigan, died at Hollywood, California, March 19th, 1926. For some time Dr. Hornbogen had been suffering from a Cardiac condition and a trip to California was taken with the hope that a period of rest would bring about an improvement in his condition. Dr. Hornbogen was born at Reeds Landing, Minnesota, February 14, 1871, a graduate of the University of Illinois Medical Department in 1894 and located in Marquette in 1895, specializing from 1895 in diseases of the eye, ear, nose and throat.



Dr. Harry J. Hornbogen

Dr. Hornbogen was a member of the Upper Peninsula Medical Society, Marquette County Medical Society and the Michigan State Medical Society and the American Medical Association. For some 15 years he has been Secretary of the Mar-

quette County Medical Society and has always been intimately conected with the Medical activities of the Upper Peninsula where he established an enviable reputation. He leaves a widow, two sons and a daughter, and two brothers, Dr. A. W. Hornbogen of Marquette, and Frank G. Hornbogen of Seattle, Washington. His body was returned to Marquette and funeral services were conducted on March 23rd.

Dr. D. B. Sullivan of Flint, Michigan, died February 18, 1926. Dr. Sullivan was 50 years old and had practiced medicine in Flint for ten years. He was a graduate of Amherst College and also Saginaw Valley Medical College.

County Society News

OAKLAND COUNTY

I am sending a brief, belated, report for the Oakland County Medical Society.

Officers elected for 1926 are as follows: President, Dr. Nathan B. Calvin, Pontiac, Mich., (re-elected); vice-president, Dr. Irwin H. Neff, Birmingham, Mich.; secretary, Dr. Frank S. Bachelder, Pontiac, Mich; treasurer, Dr. Isaac O. Prevette, Pontiac Michigan. Directors are Doctors R. Y. Ferguson and D. G. Castell, Pontiac, Mich., and Dr. Peter Stewart, Royal Oak, Mich.

The Minimum Program was adopted as a guide for 1926 activities, and at the January 27th meeting Dr. J. Hamilton Charters, Councilor of the 1st District and Harvey George Smith, Executive Secretary, gave interesting talks on the work being done and planned for the district and how the County Society could co-operate most effectively.

The Board of Directors have assigned committees to carry out the plan as outlined.

The question of a raise in dues from $12 to $20 was voted down and the dues will remain as before, additional funds, if needed to be raised by assessment.

Our present membership is 88.

Very truly,

Dr. Frank S. Bachelder.

SAGINAW COUNTY

The Saginaw County Medical Society is now holding their regular monthly meetings at the new Board of Commerce building.

The officers elected for the year 1926 are: President, Dr. A. R. McKinney; vice president, Dr. J. T. Sample; secretady-treasurer, Dr. F. J. Cady; board of censors, Dr. M. Kollig, G. W. Hutchison, W. L. Slack; legal adviser, Dr. W. J. O'Reilly; delegate to state meeting, Dr. D. E. Bagshaw; alternate, Dr. A. E. Leitch.

Our first meeting was held January 13.

A motion was made and carried that the dues remain at $15. The Society has finally decided to buy a lantern. This has been a much needed piece of armamentarium and we are glad we are going to have one.

Dr. Shawan of Detroit gave a lecture on "Goitre, Its Diagnosis and Treatment." His talk was very comprehensive and thorough and brought out a free discussion.

Our second regular meeting was held February 10th.

The minimum program was discussed and adopted without changes. We feel that there is about everything necessary outlined in the program and its adoption was unanimous.

Dr. C. Darling of Ann Arbor, our State President, was the speaker of the evening and gave a very interesting talk on a "Surgical Viewpoint." He spoke on the past, present and a glimpse of the future of surgery and also spoke in favor of the minimum program.

Respectfully submitted,

F. J. Cady, Secretary.

TRI-COUNTY

The regular meeting of Tri-County Medical Society was held at Mercy Hospital Tuesday evening, January 23-26. The usual excellent dinner was served at 6 p. m.

Members present were Doctors Smith, Gruber, Carrow, Ricker, Miller, Neihardt and Moore. Meeting called to order by President Smith. Minutes of last meeting read and approved.

Secretary read letter from The Fort Wayne Medical Protective Association in reply to one sent relating to facts concerning the Mal-Practice suit of Dr. O'Dell of Three Rivers, Mich.

Motion by Dr. Bruber, seconded by Dr. Carrow, local dentists of the 10th District Dental Society, be admitted to the Staff of Mercy Hospital as per their signed application for membership.

Motion by Dr. Ricker, seconded by Dr. Neihardt that President appoint a Committee On Resolutions concerning the death of Dr. C. E. Miller. President appointed Doctors Bruber and Ricker. The following resolution was sent to the members of the family and a copy spread on the minutes of the Society.

Motion made and carried to instruct the Secretary to furnish cut and memorial to Michigan State Journal on the death of Dr. Miller.

The Committee on Fee Bill reported no response from Medical Societies written for their Fee Bill. Committee authorized to prepare same for adoption. Adjourned to Hospital Staff room for regular meeting with the Sisters. Comparative Hospital reports for January, 1925 and 1926 was given, showing 33 per cent increase in patients, 600 per cent increase in laboratory, 500 per cent increase in X-ray department.

Very interesting discussion on causes of deaths for January, 1926.

Paper by Dr. Neihardt on "Prevention of Insanity." This was a very interesting paper, dealing with the early history of methods of handling insane cases, a very complete record of statistics obtainable on causes of insanity, together with a very interesting discourse on the prevention and ways of handling insane cases, from the pre-natal stage to adult life.

This paper brought forth a most interesting discussion with some interesting arguments on the pro and con side of the wet and dry relationship to insanity.

Meeting adjourned at a late hour.

S. C. Moore, Secretary.

WAYNE COUNTY

The meeting of February 15th, 1926 had as its main attraction, Dr. Chas. A. Elsberg, of New York City, who spoke on "The Diagnosis of Tumors of the Central Nervous System," a talk

which was not only highly interesting, but one which proved very instructive to all who were in attendance.

The week of February 22nd was given over to the annual meeting of the American College of Physicians and the American Congress on Internal Medicine—the gala event of the year for Detroit and Wayne County as attested to by the large attendance of both the local and out of town members of the profession.

March 2nd was State Medical Society Night, and short interesting talks were given by Doctors C. G. Darling, J. B. Jackson, R. C. Stone, B. R. Corbus, and F. C. Warnshuis.

The meetings of March 9th and 16th were addressed by two prominent Cleveland men, Dr. John Phillips, on "Angina Pectoris" and Dr. George W. Crile on the "Diagnosis of Cancer." Both speakers lived up to their excellent reputations by giving much that was of value to the local profession.

The last meeting of the East Side Physicians Association was held March 4th, 1926, at the Frederick Sterns Laboratory. Dr. A. D. LaFerte read a paper on "Fractures."

The monthly meeting of the Highland Park Physicians Club was held March 4th, 1926. Dr. Phil. L. Marsh of the U. of M. Medical Department, spoke on the "Diagnosis of Chronic Heart Disease."

Dr. Max Wershow, of Lansing, Michigan, has recently located in Detroit with offices at 511 Kresge Building.

HOUGHTON COUNTY

The Houghton County Medical Society held its regular monthly meeting Tuesday, March 2nd, at 8:30 p. m. at the Douglas House, Houghton, with 12 members present. After the reading of the minutes and allowing of bills, the matter of the minimum program as outlined by the State Medical Society was taken up for discussion. On motion of Dr. LaBine it was decided that this matter be laid on the table until after the Secretary had attended the conference.

A motion was made by Dr. LaBine, seconded by Dr. Harkness, that the Secretary attend the County Secretaries Conference in Grand Rapids, March 30th, allowing railroad fare, etc.

The matter of a series of advertisements to be run in the local papers with regard to prompt payment of doctors for their services was adopted and assessment to cover the cost of this is to be levied at once.

Dr. A. F. Fischer next made a few remarks on the preventorium clinics which have been held in Houghton County, and stated that they contemplate holding a well baby clinic and the giving of public talks before different organizations. A motion was made and carried that the Society would aid in these clinics and in this work.

The first paper of the evening was read by Dr. T. P. Wickliffe, of Lake Linden, on "Tuberculin in the Treatment of Tuberculosis." Dr. Wickliffe covered the subject very thoroughly and gave his experience in treating several cases of tuberculosis in Kentucky and since coming here. Dr. Wickliffe stressed the proper dosage and the proper interval for treatment. He had used Kochs Old Tuberculin. His best success was in glandular conditions. This paper was discussed by Doctors Harkness, Stern, Fischer, LaBine and Van Slyke.

The next paper of the evening was read by Dr. Alfred LaBine of Houghton, and was a report of "Resection of Bowel in Tuberculosis." Dr. LaBine first took up the different forms of tubercular colitis and enteritis. This particular case was the hyperplastic form of tuberculosis of the bowel. The patient was first operated on the 4th of September, 1925, for appendicitis, after being sick five days. A gangrenous appendix was found and drainage inserted. In a few weeks the patient developed constipation, tympany, pain and distention. An ileostomy was performed on October 8th, and the patient then went home in a few weeks. On January 12th he was returned to the hospital, at which time for double fecal fistula a resection of six inches of ileum and the lateral anastomosis was done; also resection of ten inches of coecum and a lateral anastomosis was done and drainage inserted. For five days the patient was allowed no water by mouth, all fluids being given by proctolysis. On the third, fourth and fifth days following the operation the patient had normal movement. On the thirteenth day the patient went home and fistula was closed. He has since been up and is apparently recovered.

Dr. Warthin's pathological report was hyperplasia and tuberculosis of bowels. This case was treated in St. Joseph Hospital and Dr. LaBine is to be congratulated upon the successful recovery of this patient, who was only twelve years of age. This paper was fully discussed by all present.

The Society then adjourned to lunch.

G. C. Stewart, M. D., Secretary.

CALHOUN COUNTY

The third regular meeting of the Calhoun County Medical Society was held at the U. S. Veterans Bureau Hospital No. 100, Tuesday evening, with dinner at 6:30 and scientific program at 8 p. m. During the dinner hour quartets, solos and piano selections were given by the patients of the hospital.

Bills were presented as follows:

Phoenix Printing Company	$8.25
Dr. L. E. Verity (postage and mailing Bulletin)	1.60

It was moved and supported the bills be paid.

On motion by Dr. Haughey, Jr., the Secretary was instructed to attend the Annual Meeting of County Secretaries at Grand Rapids on March 30th and that expenses of said trip be paid by the Society. Carried.

Cases illustrating the various stages of General Paralysis of the Insane were shown by Doctors Walsh and Salisbury. In the absence of Dr. Scheln his Scientific paper on "The Treatment of Neurosyphilis with Tryparasamide" was read by Dr. Hentz.

The President extended the hearty thanks on the part of the Society to the very excellent dinner, entertainment and scientific program put on by the officers and staff of the Veterans Bureau Hospital.

Meeting adjourned at 9:30. Attendance at dinner and meeting approrimately 80.

Dr. L. E. Verity,
Secretary.

OTTAWA COUNTY

The Ottawa County Medical Society held its regular noon-day luncheon and meeting on March 9 at the

Warm Friend Tavern at Holland. There were twenty-six members present. After the luncheon the program consisted of two excellent addresses by Doctors Boys and Jackson of Kalamazoo, on "The Clinical Aspects of Goitre," and "Basal Metabolism" respectively. Dr. Boys gave a lantern slide demonstration and Dr. Jackson exhibited many interesting charts. Both addresses were of great interest and value to the Society, and Ottawa County recommends these two men to any County Society wishing an excellent program on this subject. After the program it was decided to send the Secretary to the conference for County Secretaries to be held in Grand Rapids on March 30. All other business was postponed until the April meeting at Grand Haven.

Dr. Wm. M. Tappan, previous Secretary for three years, will return April 1, from the south, where he has spent some time following his operation for toxic thyroid. Dr. Tappan reports he has gained twenty-five pounds in weight and feels more fit than ever.

O. Vander Velde, M. D., Secretary.

ST. CLAIR COUNTY

The St. Clair County Medical Society held a regular meeting on Thursday, March 4, 1926 at the Hotel Harrington. After the usual dinner and social hour the meeting was called to order by the President, Dr. J. J. Moffett at 7:45 p. m. with nineteen members present not invluding the President and Secretary-Treasurer. Dr. M. L. McGarvey of Port Huron was present as a visitor. Following the usual business session, Dr. C. C. Clancy, Past President of the Michigan State Medical Society and President of the Port Huron Hospital Association outlined the plan of the Board of Trustees' of the Port Huron Hospital with regard to the standardization of the hospital. The members of the Society present at the meeting pledged themselves to co-operate with the Hospital Association in the plan. Meeting adjourned at 10:30 p. m.

A regular meeting of the St. Clair County Medical Society was held at the usual meeting place on Thursday, March 18, 1926. Following the usual dinner and social hour the meeting was called to order by Dr. C. C. Clancy, acting chairman in the absence of the President, at 7:15 p. m. with eighteen members, including the Secretary-Treasurer, present. Dr. Wagley of Pontiac State Hospital was a guest. The address of the evening was made by Dr. Christian, Superintendent of the State Hospital at Pontiac. Dr. Christian outlined the duties of a physician called to make probate examinations in mental cases and described certain usual border line cases brought before probate courts. Following the address the usual discussion by the members of the Society took place, Dr. Christian closing the evening in the usual manner. The meeting adjourned, following a rising vote of thanks extended to the speaker of the evening, at 9:45 p. m.

George M. Kesl, Secretary-Treasurer.

BRANCH COUNTY

A meeting of the Branch County Medical Society was held March 12, 1926 at the Arlington Hotel. Luncheon was served after which the following business was transacted. It was moved and seconded that the Branch County Medical Society unite with Hillsdale and St. Joseph in a Tri-County Medical Society.

Moved and carried that the next regular meeting be held at Quincy. The president appointed Doctors Griffith, Schultz and Holbrook, a committee to consider the applications of Dr. Anderson and Dr. Becker, for membership. The committee reported favorably.

Moved and carried that Dr. G. H. Moulton and Dr. N. Baldwin be made honorary members of the Society.

Moved and carried that non-medical men be invited to talk to the Society from time to time.

The election of officers for the year then took place. A motion was made that the present officers be unanimously elected. Motion carried.

Moved and carried that the meetings of the Society be held on the first Friday of each month when possible.

A committee, consisting of Doctors Bein, Williams and Griffith was appointed to investigate the advisability of raising the medical fees.

B. W. Culver, Secretary.

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

FACTS ON THE HEART: Richard C. Cabot, M. D., Professor of Medicine and Social Ethics, Harvard University. Octavo of 781 pages with 163 illustrations. Cloth, $7.50 net. W. B. Saunders Company, Philadelphia and London.

Cabot's work in diagnosis, his thoroughness in clinical study and correlation of symptoms with pathology is well known. His ability to deduce facts is recognized. This present text is based on a study of 1906 cases decisively diagnosed by post-mortem. He then has worked back to the clinical findings. From such an intensive thorough study he has recognized certain facts that he imparts. Truly, a splendid, dependable undertaking, and one that causes this text to differ from all others. It is a text that imparts the most definite existing information on diseases and lesions of the heart.

NEPHRITIS: H. Elwyn, M. D. The Macmillan Company. Price $5.00.

Ears and the Man. F. A. Davis Company, Philadelphia. Price $2.00.

THE SURGICAL CLINICS OF NORTH AMERICA. (Issued serially, one number every other month.) Volume V. Number VI. Philadelphia Number—December, 1925.) 223 pages with complete index to volume 5 and 50 illustrations. Per clinic year (February, 1925 to December, 1925.) Paper, $12; Cloth, $16 net. W. B. Saunders Company, Philadelphia and London.

Of established standard. Profitable by its intrinsic instructive case discussions.

A MANUAL OF CLINICAL LABORATORY METHODS: C. L. Cummer, Ph. B., M. D. Second Edition. Price $6.50. Lea & Febiger, Philadelphia.

A very accurate and inclusive manual for laboratory men and physicians because of its concise, intelligible directions in diagnostic methods. It includes in its contents recent accepted tests.

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Original Articles

THE TRANSPORT MECHANISM OF THE ALIMENTARY TRACT AND ITS CLINICAL SIGNIFICANCE

C. F. McCLINTIC, M. D.,

(Professor of Anatomy, Detroit College of Medicine and Surgery, Associate Neurologist, Providence Hospital)

DETROIT, MICHIGAN

Probably none of the basic facts of the Science of Medicine are more confusing than that of the visceral nervous system. A few years ago we studied the pneumogastric nerve and sympathetic nervous system. Then we learned later of a vago-sympathetic, then of a para-sympathetic, and later of the autonomic. So today the text books tell us of the autonomic nervous system and sympathetic.

The reason for this confusion it seems to me, has resulted from the failure of the physiologists, (1) to correlate their physiological knowledge and (2) to take a complete survey of the field, instead of studying it piece meal by doing a little piece of research work at first one place and then another and drawing final conclusions with reference to one part without taking into consideration the inter-relation of other parts.

For example, one will study the submaxillary gland, another the parotid, and third the sublingual and draw different conclusions for each with reference to their nervous mechanisms when as a matter of fact they are identical not only functionally but anatomically as well.

The same is true for the thyroid innervation, the pancreas, liver supra renals, etc.

From the evolutionary viewpoint the visceral nervous system is a survival of the old ganglionic chain systems found in the earth worm, bees and all lower forms and in them the functions are identical for different segments.

So we should regard our visceral systems as archaic mechanisms which have become enveloped by the so-called somatic or voluntary mechanism which serves to house the old vegitative mechanism, and the old mechanism works in the same old way in its new home as it did in the old one.

So with your permission I will endeavor to present the general plan of structure of the visceral nerve mechanism and point out the uniformity of its reactions.

When the visceral nervous system is analized on its motor side it is seen to have two phases. One of which is motor or a contracting phase, the other an inhibitory or a relaxing phase.

A study of the structure of the system reveals this fundamental rule, namely the nerve fibers which cause contraction of visceral or plain, or smooth or involuntary muscle originate within the cerebro-spinal axis and relay in ganglia located in or on the viscus enniervated. Those fibers which cause the relaxation or inhibition, originate within the cerebro-spinal axis and relay in ganglia peripheral to or some distance from the viscus ennervated.

These statements are true for all of the visceral nervous system whether it be the vagus, or autonomic, or sympathetic, or para-sympathetic. There seems to be an exception in the case of the vagus to the heart but the heart is in a category of its own because its musculature partakes of the nature of both involuntary and voluntary muscle, and there is some good evidence that the vagus nerve is not purely a visceral nerve but is in part somatic. With this exception noted we are prepared to show that the visceral vagus motor is not in any sense different from the sympathetic motor. The confusion has resulted from morphological changes incident to the development of or the superposition of the voluntary nervous system on the old archaic visceral mechanism.

So let us point out the identity between the vagus and sympathetic or autonomic.

*Read before the Clinical Section of the Congress on Internal Medicine at Detroit, Michigan, Feb. 22-27, 1926.

Located in the brain stem and spinal cord is a column of gray substance the cells of which form the centers for the endings and origin of the visceral nerve fibres. In the medulla of the brain-stem these cells constitute the vagal, salivatory, and other nuclei. In the spinal cord they constitute the nuclei of Stilling, and Clarke's coumn. (Fig. I).

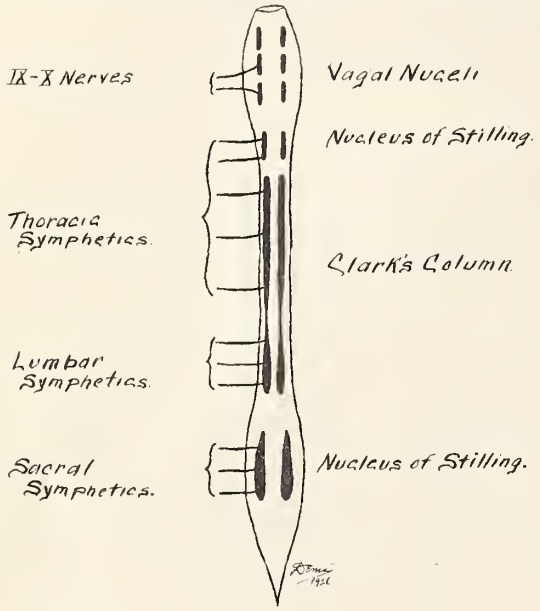
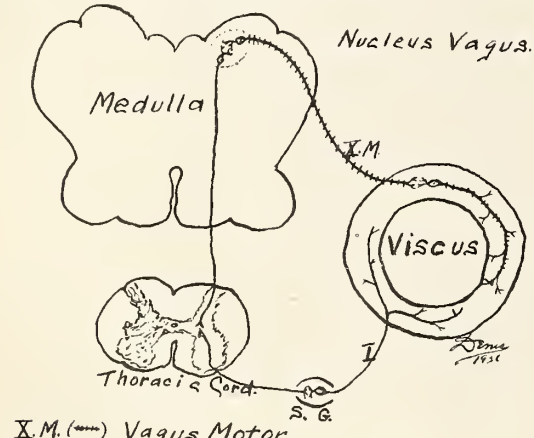


Figure I

The sensory or afferent fibers to these centers are identical in extent with the somatic sensory neurones. That is, the sensory visceral fiber arises in the viscus, runs to the sensory nucleus and continues into the central nervous system. (Fig. 11).



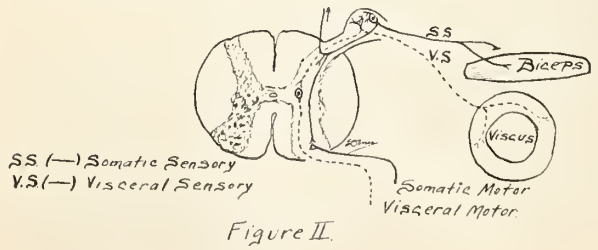
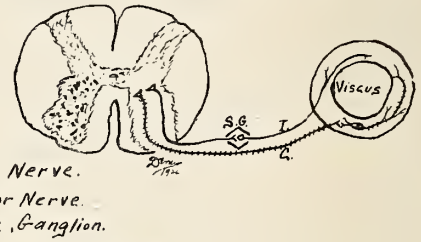


Figure II.

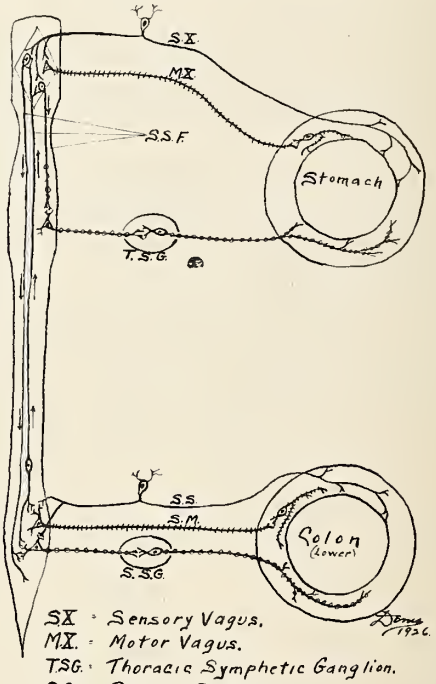
The outgoing motor fibers arise from the central cell body and if it is motor, i. e. causes contraction of visceral musculature it runs to the viscus and relays in the intrinsic ganglia; if it is inhibitor. i. e. causes relaxaton of visceral musculature, it relays in a peripheral ganglion some distance from the viscus to which it is destined. (Fig. 111).



I. (—) Inhibitor Nerve.
C. (----) Contractor Nerve.
S.G. Symphetic Ganglion.

Figure III.

The upper part of the alimentary tract is supplied by the vagus and autonomic nerves. The lower part by the sympathetic, but as seen from our previous statements, these not only function in identic manner but are also identical in structure. The differences being apparent rather than real. By reference to the chart (Fig. IV), it is noted that



SX = Sensory Vagus.
MX. = Motor Vagus.
TSG. = Thoracic Symphetic Ganglion.
S.S. = Sacral Sensory.
S.M. = Sacral Motor.
S.S.G. Sacral Symphetic Ganglion.
S.S.F. Spinal Solitary Fasciculus.

Figure IV.

that motor fibers of the vagus come out of the medulla and relay in the plexus of Auerbach and Miessner in the viscus. The inhibitory fibers come out of the thoracic cord, relay in the sympathetic ganglia and then terminate in the viscus.

In the sacral sympathetic it is noted that the motor fiber comes out of the cord and relays in the plexus of Auerbach and Miessner.

The inhibitory fibers come out of the cord and relays in the peripheral ganglion and then terminate in the viscus. Are not these courses identical for the vago-sympathetic, and the sacral sympathetic?

But you may say that their central connections differ. Let's analyze it. A bundle of associations fibres called the solitary and spinal solitary fasciculus is present in the medulla and cord which connects the vagal center of the medulla an the sympathetic in the cord as represented in the chart (Fig. V).

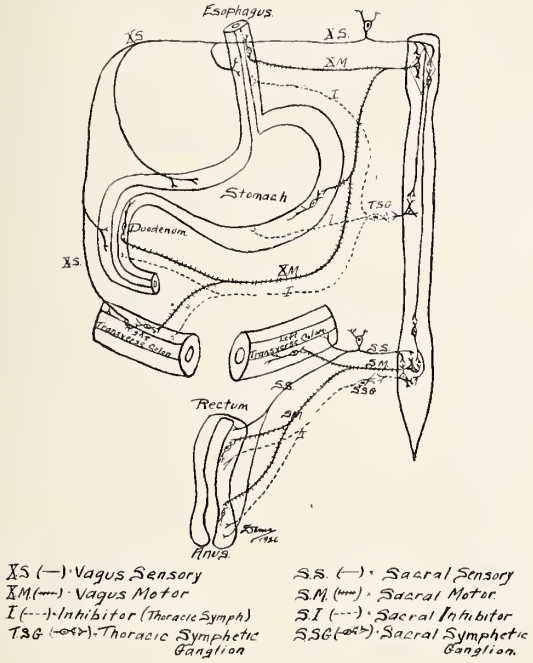


Figure V.

In the Lumbo-sacral region similar intraspinal fibers exist which, while shorter, connect the motor and inhibitory cells of the sacral sympathetic (Fig. V and VI). This

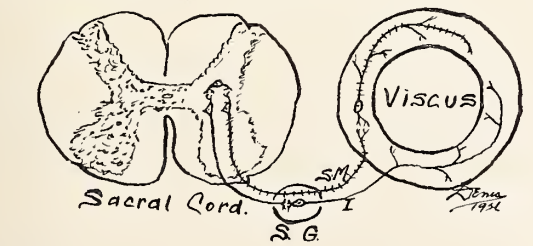


Figure VI.

demonstrates quite clearly, therefore, that the mechanisms to the upper and lower portions of the alimentary tract are identical in structure as well as in function.

The mechanism above described is the same whether we are discussing the blood vessels (vaso-constriction and vaso-dilatation) the glands, the lungs, the bladder, the uterus or the alimentary tract.

So let us confine our attention to the neuro-muscular mechanism of the alimentary tract. In the consideration of the digestive tract we should not lose sight of the fact that one of the physiological properties of visceral muscle is that of automatic and rythmic contractility, and this may occur independently of the nerve supply but in a system of such great length as the aiimentary tract it is quite essential that the contraction wave pass in a given direction, that it be properly correlated, and in the second place because of differences in function of different segments of the digestive tract it is quite essential that the automaticity of the gut wall be properly regulated to subserve the function of he particular segment of the gut. For example, it has been observed that the rate of passage of the gut content is about as follows: It takes food about 8 seconds to travel the esophagus; some food passes from the stomach to the duodenum a few minutes after entrance; in 4½ hours it begins to enter the cecum; in 6½ hours it has reached the hepatic flexure; in 9 hours the splenic flexure; in 30 hours it is in the iliac and pelvic colons. These are the observations of Dr. A. F. Hurst on a bismuth meal observed with a fluroscope. If the rate of its passage through the esophagus were maintained throughout it would leave the rectum in about 4½ minutes. So that while the visceral musculature of the gut can contract automatically and rhythmically yet it must be correlated in order to permit the digestion and absorption of food.

The gut when completely severed from the central nervous system is similar to the alimentary tract of an earthworm whose food, moist earth, passes through in a continuous rythmic stream. In certain pathological conditions this condition may result as in certain forms of ileus in which food passes rapidly through the bowel in an undigested state.

To bring about the correlation of the various segments with their different functions, we find nerve centers located along the gut, and associated with these centers are more or less well developed sphincters which when they close confine the contents of the gut to a certain segment.

The nerve centers were worked out by Keith, and are associated with his name as the nodes of Keith.

By reference to the chart (Fig. VII—from Traves—) you will note that they are located at the (1) upper and (2) lower ends of the esophagus, (3) at the junction of the duodenum and stomach—the pylorus, (4)

one just below the entrance of the bile duct, (5) at the ileo-cecal junction, (6) right middle third of transverse colon, (7) at junction of rectum and the sigmoid colon and (8) at the external anal sphincter.

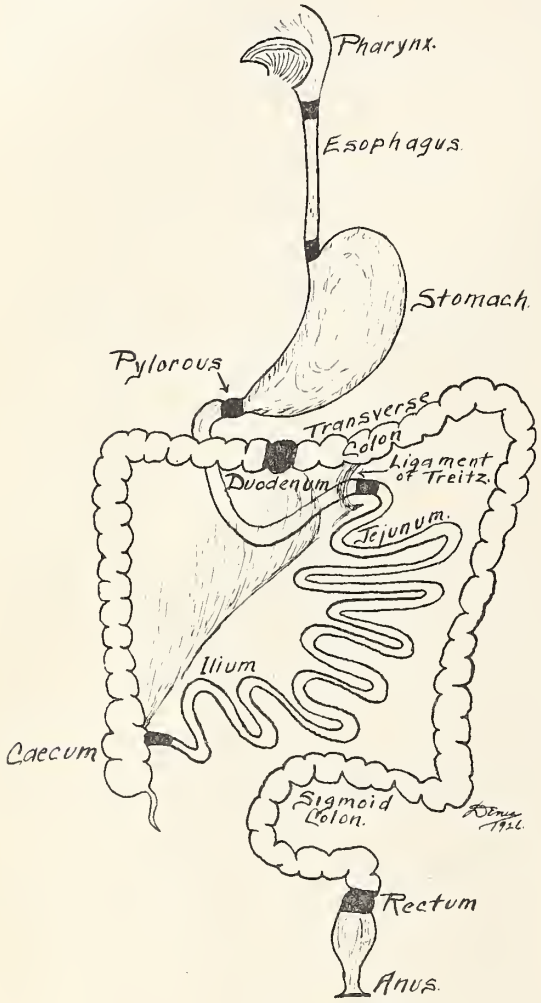


Figure VII.

These nodes are similar to the circles of irritation found in the bronchi—there they are located at the branching of the bronchi and the wave passes towards the larynx. In the alimentary tract, in certain segments the waves are directed towards the anus, in others at one time towards the anus and at other times toward the mouth.

In the esophagus, small intestine, left two-thirds of the transverse colon, and the descending colon the peristallic wave passes towards the anus. In the stomach, ascending colon, and right third of the transverse colon they may pass either way.

The irritability of the gut is greatest at these nodes and gradually decreases until the next one is reached. To all that portion where normal reverse peristalsis occurs, the vagus nerve is distributed. Under certain pathological conditions reverse peristalsis may occur in the part distal to the distribution of the vagus.

It is from these nodes that the normal movements of the gut are regulated but in the event of a pathological condition resulting in a disturbance of their normal functioning one of three or four things may happen. A spasm at one of the sphincters may occur, producing stasis of the intestinal contents, constipation, etc., a reverse peristalsis may result, or a combination of spasm and reverse peristalsis as in vomiting with pylorospasm, or relaxation and immobility may occur as in gas distension from failure of the motor impulse to be transmitted and finally a spastic condition may result from failure of the inhibitory impulse to pass.

On this basis we have therefore an explanation for regurgitation, vomiting, spasm of the pylorus, duodenal spasm in which bile enters the stomach and is vomited, stercoral or fecal vomiting as in appendicitis, tympanites, spastic and atonic constipation.

I might mention in passing that the node in the duodenum is often the cause of more mischief than we suspect. It is possible for a spasm of it associated with a spasm of the pylorus to dam back the bile and produce jaundice, and also involve the pancreas.

With a knowledge of the nerve mechanism a basis is found for the palliative treatment of these conditions. Since the vagus nerve is motor to the upper part of the gut as far down as the junction of the right and middle thirds of the transverse colon, a spasm can be relieved by a drug which will depress or paralyze the vagal nerve endings or which will stimulate the inhibitory mechanism.

In atropine we have a drug which will depress the vagus. In adrenalin and hydrochinone we have a drug which will stimulate the inhibitory mechanism. Physostigmin will act to stimulate the vagus. Pituitrin and Ergot act to stimulate the muscle. Strychnine will also tone up the reflexes. So that strychnine, pituitrin and physostigmin are suggested in atonic conditions and adrenalin, atropine, and hydrochinone in spastic conditions.

That a therapeutics founded upon this basis is rational has been confirmed by my own experience in my general practice and in my Medical Service in Eloise Hospital. C. E. Haines of New York State concluding a paper states that tincture of billadonnae permanently relieved epigastric distress which as revealed by the roentgen ray was due to a contracture of the pyloric quarter of the stomach and concludes that no exploratory incision should be made on the basis of a deformed stomach as shown by the X-ray until the patient has been brought under the influence of belladonnae.

F. Hamburger of Munich emphasized the efficacy of the subcutaneous injections of .1 mg. of atropin in pylorospasm of infants.

A New York physician in an article, the journal in which it occurred I am unable to locate, recites a long series of cases of jaundice and gall stone colic which ordinarily would have been operated upon as clearing up on the administration of belladonnae, and Cohen of Vienna recommends it for spastic constipation.

SUMMARY

We have endeavored to show: (1) That at definite locations along the gastro-intestinal tract there are nerve centers (Nodes of Kieth) from which the impulses regulating gastro-intestinal movements take origin. (2) That due to disturbances of these nodes abnormal motor activity may result such as vomiting, intestinal stasis, spasm, spastic constipation, atonic constipation, etc. (3) A knowledge of the neuro-muscular mechanism involved in motor disturbances of the alimentary tract forms a rational basis for the therapeutic treatment of the condition, e. g. to relax a spasm by local action on the musculature magnesium sulphate may be used; to relax the spasm by acting on the intrinsic ganglia atropine may be used; or by action on the sympathetic ganglia adrenalin may be used. To tone up the neuro-muscular mechanism in atonic states pituitrin and physostigmin may be used for local action and strychnine for its stimulating effect on the spinal cord mechanism. The application of the above principles has proven successful in practice.

THE NEWER THINGS IN DENTISTRY

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In trying to pick out the newer things in dentistry I find I am up against a rather tall order. The Profession of Oral Surgery, being as you well know, such a divided one; on one hand we have the purely pathological and physiological conditions of the oral cavity to restore to a more or less normal condition, and on the other hand we have the purely mechanical restoration to normal of the masticating function of the jaws and teeth. To do this subject justice, it seems to me, to be quite necessary to divide my subject in the same manner in which the practice of the profession itself is divided. First:— the purely pathological restoration of the teeth, bone and tissues of the mouth to a normal condition and Second:— The purely mechanical restoration of the masticating function of the mouth by mechanical appliances.

It is a bit difficult to determine just what is the newest thing in ideas and methods in the first named division. I might say that the use of nitrous ogygen gas with oxygen, or the use of ethelyne gas is one of the newer methods of anesthesia, again, one might speak of the newer technic used in nerve blocking, all good and all more or less new. But it occurs to me that the biggest advance in diagnostic work and the greatest aid in the newer idea of preventative dentistry is the newer conception of the use and help derived from the intelligent use and correct interpretation of dental radiograms. So I will confine myself, in the first named division of my subject, to the "Use and Abuse of the Dental X-Ray."

There was a time, not so long ago, that the dental radiogram was considered the final word in diagnostic work. If your radiogram showed a dark area, of any kind or description, anywhere near the apex of a suspected tooth, that tooth was doomed; the radiogram showed a dark area and that was the final word.

Fortunately methods have changed, this hit or miss guess work without any understanding of the anatomical, physiological and the pathological structure as shown in the radiogram of normal bone and tissue, has been superceded by a close study and a better knowledge of the histology, anatomy, physiology and pathology of the normal bone and normal tissues of the area under examination. So that when one interprets the radiogram of today he is in a position to state quite definitely any pathological change from the normal appearance and to make a corect diagnosis, as well as prognosis of the tooth or teeth in question. I don't claim that a diagnosis based purely on the findings as revealed in the radiogram is the final word, but I do claim by the aid of the radiogram and its intelligent reading, together with the subjective and objective, the systemic and local clinical findings one can make a very accurate diagnosis of the tooth in question.

I think that the story of the two old codgers who could not tell the time of day by looking at the clock, neither of whom wished to admit it, will better illustrate what I mean by a hit or miss diagnosis. Seems neither could tell time by a clock, but always depended on the sun. One of them became the proud possessor of an Ingersoll and meeting his friend and being asked the time, proudly holds the timepiece so his

*Read before the Grand Traverse-Leelanau Medical Society, February 9, 1926.

REFERENCES:—Browning's Dental Radiogram, "Oral Hygiene".

friend could see, saying 'there she be'. His friend, after careful scrutiny and not wanting to show his ignorance replies, 'damned if she ain't'. It is quite similar to a case in mind of a radiogram of a second inferior bicuspid, this radiogram showed a beautiful circular shadow just at the apex of the root of the tooth. The dentist proudly held this up to the light so that his patient could see and pointing to the dark shadow says, 'there's your trouble, a mighty bad apical abscess we must extract at once. The patient as ignorant as the dentist, agrees and the tooth is extracted. Then both are fearfully surprised to find no indication of an apical abscess, and in fact on further examination the tooth proves to have a vital pulp. If the dentist had known his regional anatomy a wee bit better and if he had made the few simple clinical tests, then studied his radiogram and tried to ferret out any pathological changes that might have been present, he would have found that what he took for an apical abscess was nothing more or less than the shadow of the mental foramen or termination of the mandibular canal and his patient would have one more tooth to help masticate his food.

Another case comes to mind of a patient sent in to me by a physician for examination. Patient presented all the symptoms of a badly ulcerated tooth; swelling, fever, pus exuding quite freely, yet in this self evident case a radiogram was taken, fee collected and the patient sent to me for extraction. In this case no attention at all was paid to a clinical examinaion, the only excuse for the radiogram was the fee.

How can one say positively, with only the X-ray findings to go by that a certain tooth has an apical abscess, due to infection when two other causes of that pathological condition have not been taken into consideration. Might that condition be brought about by extensive instrumentation? Might it not be brought about by extensive medication? Most surely, but if all clinical findings also point to infection and not to mechanical or chemical causes, then and then only are we justified in our having our patient part with an important member of his masticating family. I am a bit insistent on this point because we are quite prone to take the X-ray findings as final. Especially so when we ourselves do not make the radiograms but depend on others, not only to radiograph, but to interpret the radiograms for us. We somehow forget that the X-ray findings is only one phase of the diagnosis and we must complete these findings by clinical diagnosis ourselves before we get a true history of the existing conditions.

Again it is quite impossible to diagnose pyorrhea alveloaris in a dental radiogram; but in the condition known clinically as pyorrhea alveolaris radiograms will show much or little alveolar resorption according to the extent of the disease. Here again we come face to face with the absolute folly of taking the X-ray findings as the last word, it is not and was never intended to be; it is simply an aid and not a cure all.

By the proper use of the X-ray machine, and of special interest to you physicians is the ferreting out of pains of the face and head which are of obscure origin. We find by radiograms that these pains are caused many times by impacted teeth, unerrupted or malposed teeth, broken fragments of bone, injury by careless extraction, foreign bodies, etc. Here again the full worth of the radiogram is self evident.

To the practitioner of orthodontia, it gives him a complete history of the case in hand; by it he knows the position of every tooth in the jaw; how far the permanent tooth is taking the place of the primary dentition; what teeth are malformed, what ones malposed. In fact, he has the jaw before him, as easy to read as the printed page.

For the exodontist, it gives the position of broken off fragments, the roots that would be next to impossible to extract if he did not know before hand their exact position. I know in my own case I absolutely could not keep house without my X-ray machine.

To the general practitioner, it gives the extent of tooth decay, how much stress the enamel and dentine will stand. It shows up hidden areas of decalcification long before they are palpable with an explorer. It shows him his mistakes in crowns and fillings with overhanging margins, etc. By it he has a very accurate prognosis of the life of a tooth he wants for an abutment.

For the dental canal worker; he will know without any guess work how perfect his canal fillings are, how closely he has been able to hermetically seal the apical end of his canals. He will know long before the patient the beginning of any pathological disturbance in the peridental membrane, in the alveolar cortical line, in the bone and tissues adjacent.

For the hygenist, it will show the hidden areas of calculie, how rapidly the resorption of the alveolus is getting back to normal. No, gentlemen, I cannot think of one single thing in dentistry that is of such wonderful help in all branches of the profession as an X-ray machine coupled with the knowledge of anatomy, physiology, histology and pathology so that one can intelligently interpret what the radiogram shows.

"In view of the fact that so many systemic disturbances have as their etiological factor focal infection in the oral cavity, it becomes the duty of every physician to acquire the accomplishment of correctly interpreting dental radiograms in order to intelligently co-operate with the dentist in the diagnosis and treatment of certain cases."

You will perhaps think this long discourse on the use and misuse of the X-ray in dentistry is the mutterings of a diseased mind, or else that it is simply a text book review. Gentlemen, it is neither. The cases I have cited are from my own practice, for many years I have been dependent on others to do my radiographic work and it is from these X-ray findings that I have learned the absolute folly of depending on a correct diagnosis from X-ray findings independent from clinical findings no matter how skilled the man was in interpretation. One must have both the X-ray and the clinical findings before he can give an intelligent and correct diagnosis.

So much for the first part of my assigned subject. Second the newer mechanical appliances.

Ever since Dr. Mayo made that famous speech that the next big advance in medicine would be through the dentist and that all dead or pulpless teeth must go, the dental profession has been in a turmoil. Right after that speech the 100 per cent club was formed by Dr. Dodge. "Remove all dead and pulpless teeth," was their slogan and the slaughter began. Physicians prescribed the extraction of all teeth for a general cure all, from falling out of the hair to brain diseases. However the pendulum is swinging back the other way, and the former 100 percenters are beginning to save a few of the teeth they formerly extracted.

Just how much of a menace the pulpless tooth is to the general health of the individual, I am hardly in a position to say. But I will say that unless one is willing to give the time to careful and mighty thorough canal work, checking up his results from time to time with radiograms, and the patient is willing to pay the fee such work demands and to give the time absolutely essential for this class of work, then the best results for both the dentist and the patient is the extraction of the diseased tooth and its place filled with one of the many clean, sanitary, hygenic porcelain or cast gold self cleaning or removable bits of artificial dentures.

But I will say that if this seemingly useless slaughter of countless pulpless teeth is of no other value it has developed the purely mechanical phase of dentistry to the Nth degree. Never before in the history of mechanical dentistry has there been such wonderful new developments, not only of appliances to take the place of the number of teeth lost, but of materials used in their construction. Perhaps none of these artificial substitutes are as popular as the new cast gold appliances, in the perfection, both in material and technic, these seem to be the leaders. Light, cleanable by removing, esthetic and useful. The old fixed bridge, with its cesspool of filth, is a thing of the past. Porcelain, with its highly glazed surface is tolerated by even recently bruised tissue,, is also being used where indicated. The use of these removable appliances has become so common that some day one will see in the paper a similar notice of one I saw in an Indiana paper:—

"Crawfordsville, Ind., June 9, 1925.

"An order has been issued by Chief of Police Shields, forbidding owners of false teeth from washing them in the public drinking fountains of Crawfordsville."

EAR COMPLICATIONS IN SOME OF THE MORE COMMON ACUTE INFECTIOUS DISEASES

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The incidence, course, terminations of ear infections arising in the course of an infectious disease often present a difference in many respects from those of the idiopathic forms. The deleterious effects of certain general diseases upon one section of the ear or another are productive of lesions requiring widely different prognoses. The peculiarities of ear inflammations caused by acute infections are therefore discussed under separate headings.

INFLUENZA

The frequency of ear complications in influenza varies in different epidemics; the number of cases necessitating operation, too, are in direct proportion to the severity of the ear infections. Bullous swellings filled with sanguineous serum may arise on the drum membrane. Spontaneous rupture usually follows, but shortly a similar exudate fills the middle ear cavity. The onset of the otitis media is sudden and the course fulminant chiefly due to the existing upper respiratory inflammation and nasal sinus empyemas. The severe pain and fever seem entirely out of proportion to the ear picture. If the mastoid becomes involved, it rarely subsides spontaneously. Most ear suppur-

ations in children date from an influenza: Kerley (1905) found 75 per cent of them were caused by influenza.

Internal ear. Labyrinthin involvement occurs, but not as frequently as in scarlatina, typhoid, measles and diphtheria. The tendency to hemorrhages and the high toxicity occasionally attack the labyrinth or eighth nerve without a middle ear suppuration being present. The prognosis in such instances is particularly unfavorable. A neuritis, again, may involve in order several cranial nerves, this disturbance, however, shows a tendency to recede with the exception of a permanent involvement of one of the nerves.

The diagnosis is easily established where the general symptoms of influenza are dominant and the ear discharge is from the onset bloodtinged. Mild cases of influenza, however, may be overshadowed by the more prominent ear symptoms. Early paracentesis is the best step toward a favorable subsidence of the ear complications.

MEASLES

An infection of the external ear is a rare occurrence, although noma or an extensive desquamative process may be encountered. The middle ear, on the other hand, is perhaps involved more frequently than in any other infectious disease. The usual pathway of infection is through the eustachian tube. The primary or specific form is in reality an enanthema of the tympanic mucosa; less frequently a late infection results from the catarrhal condition of the nose and throat coupled with the poor general resistance of the patient. The inflammation is usually confined to a catarrhal or suppurative process of the middle ear. When mastoid invasion results, the destruction is rapid and justifies early operative intervention.

Complications of the internal ear are not frequent and ordinarily do not induce total deafness. Certain epidemics, however, have been known to be particularly destructive to the labyrinth and to have produced frequent intracranial complications.

TYPHOID FEVER

The incidence of ear complications in typhoid fever is low. During the war, however, statistics have demonstrated a large number of middle ear suppurations; the post-bellar curve, nevertheless, has made a sharp decline.

The onset, occurring usually about the fourth or fifth week, gives rise only to moderate local symptoms. Extensive destruction sometimes takes place but the prognosis is favorable. The typhoid bacillus in the discharge is very illusive and can be found only intermittently. It is usually in pure culture. Urbantschitsch reports 27 mastoidectomies in typhoid patients with the following bacteriological findings: streptococcus and staphylococcus in 19 cases, diplococcus in one, and typhoid in two cases.

Zeidler having made systematic observations in 240 typhoid patients, records three cases of external ear and 17 of middle ear involvement (7 per cent). Two patients developed a diffuse perichondritis and the third had an abscess in the auditory canal a culture from which disclosed typhoid bacilli. He observed that the middle ear suppuration manifests itself about the fourth week, when the fever and general lymphatic hyperplasia are greatest. An otitis, too, seemed to prolong the typhoid fever. In patients who had a chronic suppuration, a fresh infection resulted promptly at the onset of the fever and usually led to nearly total deafness.

The internal ear is usually spared; sometimes isolated cochlear involvement occurs due to localized lymphatic infiltrations.

PERTUSSIS

Ear complications in whooping cough are rare. Rupture of the drum due to violent coughing has been reported. Denker and other authors have observed deafmutism following pertussis.

MUMPS

Affections of the auricle, external canal and middle ear are not frequent, while the internal ear becomes seriously involved. A specific, toxic labyrinthitis (Linck, Politzer) is very destructive. It is usually of sudden onset with tinnitus, progressive deafness ensuing perhaps even without vertigo. The deafness is usually permanent, often bilateral, but the one ear affected less seriously. The pathology has been described as a neuro-labyrinthitis and localized meningitis.

SMALL POX

Only in the serious cases when the constitutional symptoms are severe is otitis media encountered, and in these instances it is only mild in character.

SCARLET FEVER

The severest complications appear in the course of scarlatina. Bilateral otitis and unusually rapid progressing cases are seen in scarlatinal-diphtheria. About one-fifth of the ear cases in scarlet fever result in a chronic otorrhea.

Ear infection ensues by one of three modes: (1) by direct continuity from the throat, (2) through the eustachian tube

without involvement of the latter, (3) through the circulation, entirely hypothetical but proposed by Politzer. About 10 per cent of scarlatinal patients suffer with some ear disturbance; 7 per cent come to operation and one-half of this number disclose intracranial complications.

The onset of the ear trouble is not characterized by much pain, hence spontaneous perforation is the rule. This feature predisposes to extensive destruction and a subsequent protracted course.

Labyrinthitis (serous) is of toxic origin; a diffuse purulent labyrinthitis, subsequent to a middle ear suppuration, particularly when the latter is scarlatinal-diphtheritic, produces total destruction of the labyrinth and is the foundation in the young child for deafmutism.

The prognosis in the simple forms of scarlatinal otitis is favorable except in very young children and in anemic patients showing marked lymphatic tendencies. Fatal cases of scarlatinal-diphtheria as a rule have all had a middle ear suppuration.

DIPHTHERIA

External and internal ear infections are rare. Specific otitis media is not encountered very often (Korner, Politzer, Denker). A non-inflammatory otitis media accompanies practically every pharyngeal diphtheria, but does not necessarily lead to suppuration. Usually as soon as the nose and throat symptoms have passed their acme (and the antitoxin having been given) a second rise in temperature with pain in the ear initiates the middle ear suppuration.

When the Klebs-Loeffler Bacillus is the instigating organism, it may persist in the secretion for two to six months, even longer. Neither intravenous injections nor local instillations of antitoxin into the ear, sterilize the middle ear. It must be stressed that the mere presence of diphtheria bacilli is not so important as a determination of the organism's virulence. There seems to be no need in isolating a non-virulent "carrier". Sterilization of this type of "carrier" can easily be accomplished by ultraviolet ray irradiation.

In a persistent catarrh or otorrhea following diphtheria observe whether the patient has a soft palate paralysis.

ERYSIPELAS

In a discharging ear erysipelas may develop and involve the canal and auricle. A localized erysipelas behind the auricle may stimulate a mastoiditis. Oskar Beck reviews a case of acute otitis media with a spontaneous nystagmus. Labyrinthin involvement was suspected, but the nystagmus disappeared just as the erysipelatous infiltration manifested itself in the external canal.

RHEUMATIC FEVER

Some remarks are in order here to clarify a situation that may be confusing because of an association of an otitis media and rheumatic symptoms. (1) Joint symptoms occuring in a patient with an acute ear suppuration must not lead the observer to conclude a concomitant otitis and rheumatic fever. Most likely, some acute infection (scarlet fever) is responsible for both. (2) A diphtheritic patient with a suppurating ear after receiving antitoxin may complain of joint symptoms. Here the anamnesis clearly excludes an articular rheumatism. (3) One would be inclined to associate otorrhea and rheumatism in a patient with sinus thrombosis having high fever and articular symptoms. The intermittent fever and chills alone can easily differentiate the pyemia from an acute rheumatic fever.

A suppurative, rheumatic otitis media is not recognized as a distinct disease, some authors purport a rheumatic etiology in an acute otitis media where the pain still persists after the paracentesis, attributing it to an arthritic involvement of the ear ossicles.

EPIDEMIC CEREBROSPINAL MENINGITIS

The internal ear infection forms the most frequent cause of acquired deafness. Bezold recounts 233 cases of total deafness (acquired), of which 74 followed meningitis. A middle ear suppuration is seldom observed; it may be identified by the organism.

The incidence of ear complications in those patients who survive is not great, though a marked variance has been observed in the figures of different epidemics.

Through the porus acusticus internus the infection travels along the nerve sheathes and blood vessels into the labyrinth. Rapid extension follows through perilymph and endolymph. In four to five weeks the membranous labyrinth is filled with granulations and by the third month ossification has already ensued. Cochlear and vestibular functions may be both destroyed or unequally involved. One labyrinth may be absolutely dead, while the other possesses no hearing but an irritable vestibular apparatus.

The internal ear complication is not often recognized at its onset because the general symptoms of the patient (unconsciousness, severe headache) mask the vertigo and progressive deafness. The prognosis is, of course, most unfavorable recalling the rapid destruction and ossification in the labyrinth. The disturbance in equilibrium is overcome in a few months, remaining perhaps a little longer in children.

THE FREQUENCY OF ENCEPHALITIS LETHARGICA IN MICHIGAN

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A study of the early literature of the epidemic of encephalitis lethargica that swept over continental Europe, the Near East and Great Britain in 1916 and 1917, shows that the disease was quite a new entity in nosology, and for some time clinicians were frankly puzzled by its heterogenous aspects. The epidemic reached our shores in 1918, and fortunately its true nature, both clinical and pathological, had been fairly well established by this time. We, in this country, were, therefore, the immediate benefactors of the pioneering experience of our European colleagues insofar as they had been able to evolve the essential diagnostic symptoms and signs and methods of treatment.

Encephalitis lethargica was made a reportable disease in Michigan in 1921. Table I shows the number of cases and deaths reported for the years indicated.

TABLE I.

Year	Cases	Deaths
1923	65	54
1924	45	51
1925	78	60
Total	188	165

It is obvious from this table that the rule of the State Board of Health, that all cases should be reported, has not been obeyed. In 1924, for example, more deaths occurred from the disease than there were cases reported. The mortality rate for the disease is difficult to determine because of the lack of accurate statistics. Many cases are so mild that the condition is completely overlooked—yet these mild cases may have the same serious sequelae as the severe ones.

Encephalitis lethargica has a large number of sequelae or post-encephalitic states. These sequelae have lately come to be more properly regarded as a chronic phase of the disease. One of the more frequent of these, usually classed second in frequency of occurrence, is known as the Parkinson syndrome. It is so designated because of the close simulation to Parkinson's disease, or "shaking palsy." The following table shows the number of cases of the Parkinson syndrome following encephalitis that have been seen in this clinic each year since 1921:

TABLE II

Year	No. of Cases
1921	1
1922	27
1923	25
1924	40
1925	59
Total	152

In connection with an analytical study recently made of these cases, an attempt was made, by referring to the literature, to arrive at some definite figure that would express the relative frequency of this particular condition among survivors from an acute attack of encephalitis. Opinions as to its frequency were both abundant and extremely diverse. Exact figures were rare. It appears from a critical survey of these opinions, and such frequency estimates as are available, that certainly ten per cent of those persons that survive an acute attack of encephalitis lethargica will at some time thereafter develop the Parkinson syndrome. The mortality rate of the acute attack is more readily and definitely determined, and is about 20 per cent.

If these two frequency rates are applied to the number of cases of Parkinsonism after encephalitis that have passed through this clinic in the last five years, an interesting, and possibly a moderateiy startling, result is obtained. The 152 cases represent the 10 per cent of surviving cases that developed the syndrome. It follows that there were 1520 acute cases that survived. To this figure must now be added the number that died;—this brings the total up to 1,900 cases. We hasten to remark that no claim for scientific accuracy is made for these computations. The 152 cases of Parkinsonism is a fact. To repeat, the mortality rate of 20 per cent for the acute cases is sufficiently acurate for the purposes of this paper. The principal point of vulnerability is in the frequency rate employed for the Parkinson syndrome. If one of the highest estimates noted in the literature for the frequency of the Parkinson status after encephalitis had been used, the final number of cases of acute encephalitis represented by our 152 cases of the sequel would be approximately 800. On the other hand, if the lowest percentage frequency rate for the sequel under discussion had been applied, the total of acute cases represented would have mounted to five thousand. We have deliberately expressed the divergence of opinions and actual percentage rates stated, and referred to previously, in this manner for purposes of impression. The reader may exercise free choice and make the number of cases anywhere between these limits. Such a procedure will not impair the primary object of this communication. Having pondered the available data with some care, we are quite convinced that there has been at least 1,900 cases of encephalitis lethargica in Michigan in the last five years.

What is the most probable explanation for the great discrepancy between the num-

ber of reported cases of encephalitis lethargica in Michigan and the obviously very much greater incidence of the disease? It will be noted that the number of deaths from encephalitis approaches very closely to the number of cases. This suggests that the occurrence of the disease is only being reported when it results in death, or that only the most severe cases are being recognized and reported. An examination of the records of our 152 cases of the Parkinson syndrome brought out the interesting observation that 15 per cent of them had no discoverable history of any acute illness, encephalitis or otherwise, within five years preceding the onset of recognizable symptoms of the chronic stage. This fact aids materially to clear up the question propounded above, and further clearly demonstrates that the so-called sequelae are not dependent on the occurrence of an acute invasion of sufficient severity to be clinically or subjectively recognized. A still larger group of our cases were diagnosed as suffering from influenza. The error was easily established by questioning the patient for the presence of cardinal symptoms and signs of encephalitis. The remainder, about one-half of the whole group, gave a definite history of encephalitis usually by its lay name of "sleeping sickness." A conclusion with two alternatives is thus logically deduced;—either that encephalitis is not being recognized in a very large number of cases, or that cases of the disease are not being reported and recorded in our vital statistics with the care that its importance requires.

Encephalitis lethargica is a serious medical, social and economic problem. It has a high primary death rate and 75 per cent of the survivors develop sequelae or chronic manifestations of sufficient gravity to seriously impair, if not totally destroy, the patient's ability for self-support. Indeed, many cases require continuous home or institutional care. The earlier writers considered the diagnosis of encephalitis lethargica to require the presence of the triad of symptoms;—lethargy, general weakness, and cranial nerve palsies. It is now evident that the symptomatology and signs of the disease may be extremely diverse in nature and very transient in expression. Lack of space forbids even a simple compilation of the diagnostic features that have been reported. The criteria noted above probably occur more often, either singly or in some combination, than any other. But restlessness, psychic or motor, may supplant lethargy; delirium may occur in absence of cranial nerve palsies, or the latter may be very fleeting and escape undetected. Insofar as diagnosis of encephalitis lethargica is concerned, the disease should be suspected in every febrile case. If in addition to fever, and possibly associated headache, there is evidence of local or diffuse inflammatory processes, within or on the surface of the brain, that cannot otherwise be accounted for, the possibility of encephalitis lethargica should be entertained.

STATE EFFORTS TO PREVENT INSANITY

E. S. NEIHARDT, M. D.
SOUTH BOARDMAN, MICHIGAN

"The causes of insanity are as varied as the varying circumstances of man. Some for love; some for jealousy; some for grime religion; and some for pride have lost their reason, some for fear of wanting all their lives, and others for fear of dying every day, suffer worse than death."

The history of medicine, until the last two decades, was almost wholly a history of man's effort to cure disease; and what was the result? Written as late as 1884, the results were summed up in a treatise written by a noted therapeutist of the times, who said, "The clinical results of two thousand years of medical history directed along the lines of empiricism had proven scarcely more than three facts: That opium would quiet pain and lull to sleep; salts would purge; and quinine would arrest an intermittent. With what a babel of discordent voices does the medical profession celebrate its two thousand years of clinical experience."

Looking at the revolutions and contradictions of the past, it was small wonder that men should take refuge in nihilism and dream like the lotus-eaters—that all alike is folly, that rest and quiet and calm were the only human fruition. At that time learned men began to ask the question: Has the profession toiled so long and found so little? If further progress is to be made, what new paths shall be trod? Old methods must be answered, new methods must be sought out which may lead to more fruitful fields. Happily, through the great advance possible by the great discoveries in pathology and the discovery of the causes of disease, men's minds were directed more and more to the question of the prevention of disease as well as the cure of the disease. When once thoroughly intrenched in the individual, for to all it was an indisputable fact that from the standpoint of economy as well as in the saving of human lives, an ounce of prevention is worth a pound of cure. So we have come to the threshold of

the era of preventative medicine which had, until this time accomplished but little outside of the great discovery of Janner, which had practically rid the world of one of the greatest scourges of the human race.

What has been accomplished by preventative medicine in a space of time within the memory of all the older men present among the giants in disease already slain, or mortally wounded are: small-pox, yellow fever, typhus, and many others. While there are thousands of deaths from typhoid fever, diphtheria, tuberculosis and kindred diseases and all this has been accomplished against the natural conservation of every community which always raises a barrier against any, and which can only be overcome by education.

In the domain of physical medicine it is but natural that the profession should turn for relief to the same methods in the field of mental medicine, a field, as yet, practically untouched. The history of the state care of the insane in Michigan has been one of which we may all be proud. The record covering a period of forty-seven years, a history that has not been excelled by any state or country from the opening of hospital at Kalamazoo, built to accommodate a few hundred patients. The system of state hospitals and their auxiliaries have grown to nine in number and treating, at this time, over ten thousand of its most unfortunate citizens. Its equipment running into millions of dollars, yet the flow of the steady stream of human wreckage is constantly clogging its portals. Now the broad minded men have been asking the question: What shall be done to divert this stream? Immediately the question is carried from the field of curative medicine to the domain of preventative medicine.

Now in any field of human endeavor when anything is to be accomplished, the effort always is first to discover what is to be done, and then what are the means at command. A primary knowledge of the end to be accomplished, and a secondary acquaintance with the instruments to be used, are a necessity to all successful human efforts. So to divert the ever increasing stream of human derelicts, we must seek out and purify the fountain heads of the polluted stream. In other words, seek out and remove the source of pollution. First, ascertain the underlying causes of insanity; then, if possible, remove the causes.

Let us briefly review some of the more important causes that are capable of correction. Statistics show that approximately 12½% of the insanity in Michigan,, in many states the percentage is still higher, is directly caused by venereal disease making 18 per cent, or one person in eight or over one thousand. This fruitful source of supply can be controlled as any active infection when we are able to enforce our present laws under the proper authority. For if our present laws, requiring quarantines and treatment were strictly enforced to the limit in all cases, the result would be fewer, and by proper care and treatment in its early stages would be one of the most fruitful fields in the prevention of insanity.

Another source is mental weakness, for a large percent of those under institutional care are made up of the great army of morons, idiots, and imbeciles. It was once believed that the state should provide institutional treatment for all mental defectives of the state. This was before the cost and extent of the problem was computed, but when this became known, the state was forced to attempt some expedient to care for these unfortunates in some way outside of the institution. From a point of view, but also as a protection to society, it has been fairly well demonstrated that the average male moron, without vicious tendencies, who has been well trained in habits of obedience and industry, and who is protected from temptation and evil companions during his childhood, may become self-supporting member of society, all of which can be accomplished outside the walls of a state institution, or at least a short stay therein.

We also know that feeble-mindedness is highly hereditary, yet we have in most states no affective legal obstacle to the marriage of the moron, and it is doubtful that more than 10 per cent of the mentally defectives are officially recognized. And while most states have made a feeble beginning, I believe that no state has an effective workable plan for preventing the increase of the class by marriage. We have not as yet ascertained their number or location, all which could be remedied by a program I shall outline later in this paper.

Another source of the stream pollution comes from the alcoholic and drug addict, a source which is being happily purified by the stringent laws now enforced regulating the liquor and drug supply, making it impossible, or very difficult for the victims to obtain. So I believe that while the statistics of the state institutions showed that a little over 4 per cent of the insanity of their inmates were directly traceable to drug addiction, or alcoholism. The number is rapidly decreasing and in time will be entirely wiped out.

Another important factor in the cause

of insanity is the abuses which have grown up in our public schools. To quote from no less authority than Berkley, in speaking of the insanity of children, "The fault was in the system that would treat all children alike and would not even attempt to separate classes according to their mental ordering. Thus it happens that these unfortunate weaklings as far as nervous stability is concerned, at the time when growth and constructive mentality of their brains are at their maximum, and when a permanent equilibrium is not yet established are taxed and punished to the uttermost to accomplish tasks beyond their power until inevitable results which is usually beyond repair."

I find the following recorded case: A boy of a strong alcoholic ancestry at the age of eight years stood at the head of his classes and was regarded as a remarkably bright child. Under the teacher's persuasion, he strained his intellect to the uttermost to retain his position, and even after he began to show signs of failing, was nevertheless urged on by threats and promises of reward, until he became a hapless dement. The innocent victim of a criminal lack of understanding of the requirements of childhood on the part of his preceptor.

The natural egotism of childhood helps to bring about bad results, but there is an attempt to place them all on the same level. And the less proficient in mentality are spurned on by the picture of the brighter ones in class outstripping them and leaving them in lower grades. All children, entering the public school, should be examined by an expert in psychology and assigned to their various classes in accordance with their actual grade of mental acquirements, and stability. While this would be a difficult task, I believe it would be possible of attainment. A well-trained physician quickly learns to gauge the mental capacity of a child's education as now carried on with little thought of psychology. Ill usage and fright of the child by its parents is also a cause of mental disorders in children, especially of those who are of a nervous disposition, a defect in child management that can only be remedied by the education of the parents or those having the training of children.

Having painted out some of the ends to be accomplished, we will now consider some of the measures to be used for their accomplishments and we naturally turn to the great state hospitals for the insane and the men proficient in the field of psychology to direct the work, the fitting agencies through which the work may be directed. Among the agencies they shall employ the great worth of the trained nurse, many of them already trained and educated in the state hospitals where they have been instructed in the special field of psychiatric medicine; the social worker; the teacher who should have a special course in psychiatrics which should be taught in all normal schools; the education of the parents in the simple rules of child hygiene as well as physical. The teaching through the mental clinic of the simple rules of mental and physical hygiene to all citizens and above all the use as an auxilliary of every state hospital where there can be built up a great clinical center for the assistance of the medical profession in the diagnosis and treatment of all diseases. This would act as a clearing house enabling the physician to separate and properly classify the purely mental cases from the physical. These medical centers would soon gain the confidence of the communities they serve, would remove the prejudice held against our exclusive mental hospitals, commonly referred to as insane asylums. The only institution at Traverse City, I believe the only one of its kind in the state, has been in operation for the past five years. It has been a great benefit in times of epidemic, a boon to a great many people who would have been in great distress for want of proper care, both medical and nursing, enjoy today after having treated in its short career and with inadequate room, two hundred patients, the almost unbounded support of the medical profession and largely of the Grand Traverse region. While the medical clinic has been of great benefit to the cities and counties that have requested them. It should be made compulsory for all counties in the state, the backwoods district, though sparsely settled, is oft-times in greater need than its opulant and populous neighbor.

To quote from Dr. Barrett: "The matter of our clinic is the most important thing that the state hospital can undertake and some law should be passed to make it possible for any state hospital to establish that work if it wishes. If the work is desirable, I see no reason why it should not be made obligatory by state law."

An ideal program would be: First, a complete mental surgery of the state under legally instituted authority. The local administration could be carried out by the use of existing local public organizations and societies and by properly qualified volunteers in each community. This work would be made effective by the use of suitable manuals, etc., and this should reach into the home for the education of the parents, into the school for instruction and guidance of the teacher, into the court for the legal au-

thority that have the legal care of the state's paupers and delinquents. Then in cases where parents, friends, or teachers are unwilling or incapable of performing these duties, the law should safeguard the patient by the proper means by placing them in proper surroundings, either in or out of a state institution.

The rural community could well be served by a traveling clinic, where a visit to each small town should be made at least once a year.

To sum up the ideal program now possible, includes the mental examination of school children, the medical clinic, the traveling clinic, the special class, directed training of defects in country schools, and the instruction of parents of defects. After the care of special class-pupils, special training of teachers in normal schools, census and registration of mental defects, extra institutions for the treatment and supervision of the uncured, for the dependent defects in the community, the permanent segregation of those that need segregation, the mental examination of persons accused of crime, and inmates of penal institutions, the segregation of defective delinquents in special institutions.

The above program would require team work on the part of the psychiatrics, psychologists, teachers and normal schools, parents, social workers, institution officials, parole officers, court officers. There would be a highly centralized formulation of plans, methods, authority aided by work of the community. The development of the program will depend largely upon the existing knowledge and public sentiment in the state, largely a matter of education measured by wisdom and experience of the officials having in charge the work of state hospitals. Nearly every state has some program, but no state has anything like a complete program.

These measures if completed would so diminish the stream flowing into our state hospitals that Michigan would need no longer worry over plans for new buildings or new institutions. A great saving in expense, a saving which would pay many times over for all its expenses. When we consider the fact that many of those dying in our state hospitals every month cost the state from eight to ten thousand dollars for institutional care alone does this seem a Utopian dream. Remember the seeming impossible of yesterday is fulfilled today, a fact proven by the everyday experience of modern progress.

TEETH—THEIR USES AND ABUSES —BY YOU

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There is scarcely any value in an article about normal teeth, because so few have them; and being normal, they do not present a problem. When they are present there is also a good heredity, plus a healthy environment for the teeth and of the body as a whole. Another way of expressing it is that there is a balanced chemistry of the body, which means health.

It is to the possessor of abnormal (diseased) teeth in the mouth, the vestibule of the body, that causes and effects become matters of interest. Certainly to play the host and incubate within the mouth, potential enemies in the form of bacterial (germ) nests, that will presently overrun the entire establishment, as the saying goes, is not so good.

To present material that will enable a broad understanding of some of the happenings in civilized mouths, is the purpose of this symposium. Neither dentists, physicians nor research minds are in agreement on several factors that enter into the story of immunity or susceptibility to dental disease. There is, however, one distinct advantage that the dentist has in detecting trouble (diagnosis) and that is that almost always pathology (disease) can be seen in its first stages. Seeing is believing, and with the aid of the X-ray seeing all there is, visualizing any changes from the normal, can be exactly accomplished.

It is in connection with compromises with the radical cure by extraction, that makes dentistry, for the layman particularly, somewhat involved. These compromises sometimes create risks of disease in remote organs of the body, and an understanding of these risks is desirable. Organic diseases of the body that are traceable to focal (localized) infections are the outstanding facts that have broadened dental service to a cooperative attitude with the physician. Restorations (bridges, crowns, etc.) in connection with "Dead Teeth" are exceedingly risky procedures, entailing at best, periodic check-ups, with the X-ray. The risk is not so much the possibility of loss of the teeth, but liabilities, in that such teeth very often do not give warning symptoms, such as pain. However, symptoms or pain may develop in connection with some other part of the body, traceable to the teeth; but it is then, rather too late for preventive dentistry or medicine.

There is a great deal more to dental pro-

phylaxis than the popular impression in connection with the use of a local agent in the form of a dentifrice by the patient, or indeed, the use of any similar agent, by the dentist. If this were not true, the tens of millions spent on dentifrice advertising copy would turn the trick and put the dentist out of business—some say a desideratum devoutly to be wished. In point of fact, this dentifrice copy has been a boon to people, and incidentally, to dentistry, because it has caused people to think about their teeth. Dentifrices have their place, but 90 per cent of the commercial claims made for them is pure buncombe.

An Egyptian, by the name of Aesculapius who lived several thousand years ago, expressed the belief that "Diseases must be combatted in their origin." There is no more classic proof that this "ancient" knew his stuff than the modern discovery of the elective or selective action of bacteria. The elective action of the vegetable organisms known as germs, means that they, like humans, camp where they are welcome and comfortable. A local infection in or around the teeth means that the host is supplying food, warmth, moisture, etc., is in fact, an incubator for a great variety of unfriendly organisms. The germs bred in these areas can be traced in their migrations, through the circulations of the body, to remote organs where various diseases are established.

To prevent disease is the biggest thought today; but to cure disease that has been established, among other methods, the treating of it to its origin, and combatting it there, is a sound procedure. Better still, is an understanding of the principles of prevention that will materially aid in preventing the establishment of dental disease. Because teeth that are normal or approximately so, and numbering 32, are so infrequently found in the mouths of moderns, an understanding of prevention, of cause and effect can only be arrived at, by a comparison of normal function (use) with disfunction (disuse) of the teeth in relation to the body as a whole. There can be no understanding of the health of one part of the body without a conception of the body as a unified entity.

The principle function or purpose of teeth is to finely subdivide food. With the vestibule of the body idea in mind, it is in the mouth that the first chemical reactions of food should be started toward a balanced chemistry, that changes with every inch of the 27 feet comprising the food tract. Physicians are constantly speaking of "vicious circles" in connection with disease. Starting with normal teeth that are not used to finely subdivide the chemical materials that are put in the mouth in the form of food, there may be started in the only three inches of the 27 feet, that will controls, a "vicious circle" that comes back to the mouth and teeth, through the circulation as a penalty in the form of lowered resistance.

By finely subdividing the starches in the mouth, a ferment called ptyalin, that is present in the saliva, starts the conversion of the starch into a form of sugar, that in turn is burned up in the body to give warmth and energy. This chemical reaction, in connection with the ptyalin can only take place in the mouth. When hurriedly masticated, starch goes into the stomach unchanged. In the stomach there is a highly acid field and the action of the ptyalin is immediately arrested. It is a fact that beyond the acid field of the stomach there are other ferments, that in vigorous health will further act on starch. But for a number of reasons, it is always best to start starch digestion in the mouth. Protein (principally meat) should be minutely subdivided by the teeth, so that the digestive juices of the stomach will be able to digest or fluidize the meat without calling on the muscular coats of the stomach to churn themselves into functional frenzy or actual organic disease.

There are three major diseases of the teeth and they are all acquired through bacterial activity, that, in most cases can be prevented by the patient, in co-operation with his dentist. Dental caries (a cavity) in the crown of a tooth is due to bacteria forming lactic and other acids from enmeshed starch in the pits and fissures of the teeth—the susceptible areas. These acids dissolve out the salts that form tooth structure—largely calcium.

The coarser the food, the less denaturized or demineralized it is, and the longer it is masticated, the greater the cleansing friction on the tooth and balanced chemistry, that comes back to the tooth through the circulation. This, augmented by the proper frictional use of a toothbrush, will keep the teeth clean, so that nature's antiseptic, the saliva, can, by actual contact with the tooth structure protect it. Deposits and stains on the teeth prevent contact of the saliva. By putting one drop of iodin on two or three teeth, a visualization of the areas that are not clean, can be accomplished. A clean tooth will not take an iodin stain.

As a cavity progresses toward the center of the crown, the "nerve" becomes infected; which in turn causes bacteria to continue on up through the root canal until the bone around the apex of the root is invaded.

Then comes the dental abscess, the second of the three major diseases of the teeth.

The third disease, pyorrhea, is immediately caused, by bacterial ferments digesting the gum tissue at its junction with the root. Then bacteria and their toxins continue to invade the membrane that attaches the root to the bone socket. Shortly after this comes the "pyorrhea pocket" formed along the side of the root by destruction by bacteria of the bone, and other supporting tissues. Pyorrhea, in most of its forms, can be cured, unless complicated by some systemic disease. But the "cure" cannot be accomplished by the use of a dentifrice or mouth wash.

There are approximately 400,000,000 cavities in the teeth of the best dentally serviced people on earth. To get the correct slant on what nature is protesting about in the mouth, it is necessary to understand the significance of this decided deviation from the normal, in relation to other abnormalities that have come with civilization. Briefly they are: Denaturized food, exercise and emotions. Properly interpreted by a doctor, there lies more in those few words in regard to the co-efficients that enter into a harmonious adjustment to environment, than is popularly realized.

Modern milling and cooking processes have given us white bread, white sugar, white pastry and white potatoes (demineralized—skin removed) and has made us "white livered"—whatever that may mean. This with excessive amounts of the chemically difficult protein (meat) completes the picture of mineral starvation that "nature is protesting about in the mouth."

In the quest for sound food, shelter and clothing—exercise is the dominant activity of primitive people. Primitive people have relatively sound teeth. With moderns, it is difficult to secure compensating actions and reactions of an emotional nature, in connection with the procuring of the necessites of life—emotions that automatically satisfy emotional desire of the individual, the family, the tribe, etc. No longer, in urban life, is there the chase to procure food, from the animal kingdom, or exercise in planting and harvesting from the vegetable kingdom, in order to eat. Literally and scientifically, "Ye shall live by the sweat of your brow," is proven in human experience. As stated in the first paragraph, these things contribute in total "physiologic" balanced chemistry of the body as a whole, and of the teeth as a very important part of the body.

Editor of The Journal:

Dear Doctor:

I am sending you the enclosed article at the suggestion of several of my medical friends—they apparently thinking that there are some points made that might be of interest to you.

Inasmuch as this manuscript was intended for a lay publication, I frankly state that my personal reaction to their suggestions is that any points of interest that I may have touched on, have lost their value to you, because of non-technical treatment.

However, to you as an editor of an important medical publication, I do want to emphasize that I believe I express the opinions of a large number of thinking dentists when I state, that there is need in dental ranks for a fostering of what may be expressed as a "Medical attitude towards dental pathology.

There is considerable propaganda in dental ranks to delete the term "dead tooth" from literature. While I am not prepared to offer statistical case histories in an offhand manner, I will venture to state that something like 80 to 90 per cent of all treated (dead) teeth sooner or later develop pathology beyond their apicies. Granting that this estimate is correct, to my mind the status of the "dead tooth" is definitely established. I may add that in my practice I do my own extracting.

Just one more point; I am a member of State and National Dental Societies. This point may be verified by calling Dr. James Locke, President-Elect of our State Society. Dr. Locke is practicing in your city.

Sincerely yours,

L. I. Luton.

THE JOURNAL

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EXPRESSION OF

YOUR VIEWS

ON

MEDICAL SUBJECTS

PUBLIC HEALTH ACTIVITIES

Edited By

MICHIGAN DEPARTMENT OF HEALTH

THE EFFECT OF SEWAGE AND INDUSTRIAL WASTES ON THE DISSOLVED OXYGEN CONTENT OF CERTAIN MICHIGAN RIVERS

A PRELIMINARY REPORT

At various seasons of every year fish are found dead or dying in a large number of the rivers of lower Michigan. It is known that the dissolved oxygen content of a stream is very closely related to the plant and animal life of that stream. This led to an investigation of the relation between the oxygen and the sewage and industrial wastes in these streams.

Under optimum conditions, water does not hold in solution a very large amount of oxygen and the amount it will hold at the point of saturation depends upon the temperature of the water. At 0° Centigrade the point of saturation for oxygen in water is 14.62 parts per million, while at 30° it has decreased to 7.63 parts or a decrease of about one-half.

This small amount of oxygen is sufficient to support the life in the stream, but water seldom carries this amount. This is particularly true of the rivers of the lower peninsula of Michigan. The polluting material discharged into public waters is usually an unstable organic material which, in the process of decomposition or oxidation to more stable forms, removes the oxygen from the water. Some shallow and swift rivers are quick to recover by reaeration from the effects of this pollution, but the more sluggish streams and the deep holes in many of the others do not recover so quickly. Consequently we find a depletion of the oxygen content and a loss of life in the stream.

The dissolved oxygen determination on the water indicates the ability of a river to support life and to recover from the effects of pollution. The biochemical oxygen demand determination on the water indicates the degree of pollution already present. The oxygen demand determination also is made on any particular waste to indicate the degree of pollution that can be expected. These two tests, therefore, are extremely valuable in the study of stream pollution.

Complete surveys are being made of the principal rivers in Michigan at various seasons of the year. The method of procedure and the results of the dissolved oxygen determinations in a series of surveys on portions of two rivers, the Saginaw and Huron, are given below as a preliminary report on the work in progress.

METHOD OF PROCEDURE

Before the technical survey was started, a study of the Saginaw and Huron river basins was made. This study included a mapping of the entire basin showing the river and its tributaries, the towns and cities, and a list of the industries on the streams in each basin.

After this study was made, sampling points were selected with a view of including the municipalities and industries between the points in such a way as to be able to follow the effects of the polluting materials discharged by them. When possible these sampling points were bridges because of their accessibility.

A series of samples were taken at these points under varying conditions. The analyses made included bacteria counts, dissolved oxygen and oxygen demand determinations. Samples of the wastes from the different municipalities and industries also were examined.

The methods used for all determinations are those found in the Standard Methods of Water Analysis by the American Public Health Association. The dissolved oxygen determinations were made in the field.

A special sampler was necessary for taking the sample of water for the dissolved oxygen since extreme care must be taken to avoid letting the water for analysis come in contact with the air. The water first entering flushes the air out of the bottle so that the sample finally taken does not come in contact with the air in any way.

SAGINAW RIVER SURVEY

River Basin—The Saginaw river proper is about twenty miles long, beginning just a few miles above the city of Saginaw and flowing through Bay City to Saginaw Bay. The current is very slow and sluggish and often is backed up stream by the wind forcing the water from the Bay into the river. The principal tributaries of this river are the Cass, Flint, Shiawassee and Tittabwassee rivers. In all, the drainage basin covers an area of about 6232 square miles.

Dissolved Oxygen Content—The dissolved oxygen content of the Saginaw river

proper varies considerably and is greatly influenced by the pollution entering it from the cities of Saginaw and Bay City and the many industries on its banks. Table I shows the dissolved oxygen content for various seasons of the year. The results given in these tables show very plainly that the lowest oxygen content is found in winter time, series A and B, when an ice covering is on the river. This covering completely shuts off all possibilities of aeration. As long as the weather remains cold, however, the unstable polluting material remains practically inert as is shown by the relatively higher oxygen content in series C of the table. The temperature of the air at this time was below 0° C. Also in the summer, when there is plenty of aeration, the oxygen content is still higher as is shown by series D, E, and F. The crucial time comes when warm weather and ice covering are simultaneous. The results of this combination of circumstances are indicated in series A and B. Warm water coming from up-stream where the water is too swift to form a good ice covering, flows under the ice in the Saginaw river. Oxidation of the sludge and polluting material starts with no opportunity for aeration.

HURON RIVER SURVEY

River Basin—The drainage area of the Huron river is much smaller than that of the Saginaw river, covering only about 54 square miles. The tributaries are all small and are, for the most part, small outlets to the many lakes found in Livingston and Oakland counties. The portion of the river included in this survey is not more than 15 miles in length and includes the villages of New Boston and Flat Rock and one important industry.

Dissolved Oxygen Content—In the Huron river, between Belleville and Lake Erie a situation is found which is entirely different from any found in the Saginaw river. The extreme pollution in this case is caused by an industrial waste and is cited because it shows the effect of low water and high temperature upon the unstable polluting material as is indicated by the dissolved oxygen content of the water in the river.

The results of a series of surveys are given in Table 2. It will be noted that at times the water in the river at some points was entirely depleted of its oxygen. In this case the polluting material was discharged periodically as is indicated by the results on different series of samples. Series A, B. C and D indicate the oxygen content of the river without the presence of a large amount of the waste. Series E, F and G show the effects of the waste. In series G, undoubtedly, the samples were taken just after a periodic discharge of this waste near sampling point 1. Series F shows the lowest oxygen content to be down-stream. In series E, the sample showing the lowest oxygen content was still farther from the source of pollution.

COMMENT

It is an interesting fact that the lowest oxygen content of the streams was always accompanied by the death of large numbers of fish.

SUMMARY

A study of the dissolved oxygen content in a series of surveys of portions of the Saginaw and Huron rivers is reported.

The findings in this preliminary study indicates a definite relation between the presence of sewage and industrial wastes and the dissolved oxygen content of the streams.

TABLE I

THE DISSOLVED OXYGEN CONTENT OF SAGINAW RIVER

Sampling Points	Jan. A % Sat.	Feb. B % Sat.	Feb. C % Sat.	June D % Sat.	June E % Sat.	July F % Sat.
1. Old Belt Line Bridge above Saginaw		31.2	59.2	65.0	83.7	59.0
2. P.M.R.R. Bridge in Saginaw		25.7	51.2	49.4	76.0	57.7
3. 6th St. Bridge below Saginaw			45.1	47.0		
4. One mile below 6th St. Bridge below Saginaw				37.4	37.1	32.1
5. Zilkaukee, four or five miles below Saginaw		19.0	50.5		45.6	74.6
6. Cass Ave. Bridge above Bay City	27.4	15.9	43.7	81.9	80.6	57.7
7. 3rd St. Bridge in Bay City	18.5	7.6	43.7	80.8	70.7	46.2
8. Belinda St. Bridge, Bay City			42.4	72,6	65.8	45.3
9. D. & M. R.R. Bridge below Bay City	5.5					
10. Kavanaugh Dock, Essexville	1.4		39.6			
11. Bay City Boat House at Saginaw Bay	2.7	5.6	40.3		68.2	44.1

TABLE II

DISSOLVED OXYGEN CONTENT OF THE HURON RIVER

Sampling Points	June A % Sat.	Sept B % Sat.	May C % Sat.	Nov. D % Sat.	Sept. E % Sat.	Aug F % Sat.	Aug. G % Sat.
1. Edison dam below Belleville	69.0	41.0	82.0	77.8	60.5	52.7	68.4
2. One mile below Edison dam	60.0	39.8	58.0	68.1		55.3	0.0
3. Mill dam above New Boston				61.6		26.2	19.3
4. Bridge at New Boston	48.0	30.5	52.0	67.3	17.3	9.7	34.6
5. Bridge halfway between New Boston and Flat Rock	49.2	32.8	49.0	71.4			
6. Dam at Flat Rock	46.5	36.7	49.0	56.7	0.0		65.0

NOTE—Results given in percent saturation of oxygen in water at the temperature of the water at the time the sample was taken.—E. F. E.

REGULATIONS GOVERNING MIDWIVES

While the number of midwives in Michigan is decreasing, the fact remains that 3,594 births were reported in 1925 by midwives. Realizing the need of some control over these women, the Michigan Department of Health has adopted a set of "Regulations Governing Midwives" which have been sent to all midwives reporting births in the State of Michigan outside of Detroit, as this city has its own local regulations. The regulations issued by the Michigan Department of Health emphasize the fact that all midwives are required by law to:

(a) Report to the local registrar within five days all the births which they attend.

(b) Use 1 per cent silver nitrate solution (furnished free by the Michigan Department of Health) in the eyes of the newborn to prevent blindness.

The regulations also stress the need of cleanliness about the person, clothing, home and equipment of the midwife, and instruct the midwife that she must not make any internal examinations or administer any drugs before, during or after delivery except external antiseptics and prophylaxis in the eyes of the newborn to prevent blindness; and must not attend any case if she (the midwife) has any communicable disease. She is instructed to call a physician for any abnormal conditions before, during, or after confinement, and the abnormal conditions which might arise are named in detail.

These regulations are not in any way intended to constitute a license to any individual to practice midwifery, nor is there any intention to give a course in midwifery, but the object is to inform the midwife as to her limitations, and particularly, to emphasize what she is forbidden to do in the care of the mother at childbirth.

Although the Regulations Governing Midwives were only sent out to midwives in the latter part of January, 1926, a most gratifying response is already being received in the shape of requests for silver nitrate solution and birth certificates from midwives who have received the copy of the Regulations.

A nurse who has made a state-wide survey of midwives in Michigan has been appointed as Inspector of Midwives, and her duties will be to visit the midwives in their homes, inspect their homes and equipment and inquire as to their moral character and standing in the neighborhood. Since midwives have been notified that they would be subject to inspection by a representative from the Michigan Department of Health, many have signified their intention of giving up the work, and while some of these will doubtless continue the practice, it is hoped that these measures may result in the gradual elimination of the unfit, and a raising of the standard of those who continue to practice midwifery in the State of Michigan. —L. R. S.

PRELIMINARY OUTLINE OF WORK OF NEW BUREAU OF ORAL HYGIENE AND PREVENTIVE DENTISTRY

1. Get as much information as possible as to plans and programs of Oral Hygiene now in operation. Go slowly enough to build on a solid foundation as this is not a program for one year but for a number of years.

2. Develop suitable educational material for use at schools, fairs, farmers institutes, parent-teacher association meetings, etc., including material for institutional and industrial dental health purposes which would include:

(a) Posters, models, charts, leaflets, etc.

(b) Slides, films, etc., for lecture work.

(c) Suggested programs for school and other mouth health activities for different localities—city, small town, rural, county, etc. This would also include suitable cards for examinations, records, etc.

(d) Essential outfit for hygienist.

(e) Essential outfit for dentist. (Frequently school boards and other organizations contemplating starting a clinic, expend money needlessly for non-essentials and do not have the essentials. We should standardize equipment and blanks).

(f) Models and slides showing various types and procedures in children's dentistry for use in dental meetings and directions and cautions for new operators in children's dentistry.

3. Work out plans and put in operation whatever field work seems practical.

(a) By assisting localities in starting and organizing dental health activities.

(b) By providing dental health exhibit including mouth examinations at State Fair and other suitable places.

(c) By making actual demonstrations of benefits from good mouth conditions in certain schools where favorable support can be secured.

4. Gather data as to cost per child according to school census, of various types of Oral Hygiene work and results obtained as shown by actual school examinations and records noting how much each type has improved conditions according to cost per child. Figures and statistics mean little. The important items are cost and results, according to some standard.

5. Be available for a reasonable amount of speaking before schools, clubs, associations, dental meetings, etc.

6. Supervise state institutional dentistry.

7. Endeavor to keep records of all dental health activities in the state.

8. Maintain close relations with other branches of public health activities because Oral Hygiene is just one branch of public health.—W. R. D.

INTEREST IN KAHN TEST

The growing interest in various medical centers throughout the world in the Kahn Precipitation Test for the serum diagnosis of syphilis is manifested in the foreign correspondence of the Michigan Department of Health. Among those who have written to Dr. Kahn recently for assistance of some kind in making the Kahn Test a routine laboratory procedure are: Dr. Jos. A. Berlot, State Institute of Epidemiology, Zagreb, Jugoslavia; Dr. George W. Twomey. Tientsin, China; Dr. V. Nikolanka, Simferopol, Russia; Dr. S. Ramakrishan, King Institute, Guindy, Madras, India; Dr. R. S. Gault, Port au Prince, Republic de Haiti; Dr. Wladyslaw Biernacki, Serological Institute, Wilno, Poland. A translated excerpt of one of the letters follows:

"I am greatly interested in your and other authors' articles published in the Journal of the American Medical Association concerning your precipitation test, so simple, so precise and so scientifically grounded. I should prefer to learn the technic of the test in your laboratory under your personal guidance. I shall apply all my efforts to come to your country if you will allow me to work in your laboratory."—P. L. K.

DIPHTHEROIDS

Our attention is occasionally drawn to that troublesome group of organisms known as diphtheroids. From time to time such an organism appears under circumstances which belie the benign reputation usually enjoyed by members of this group.

Recently there came to this laboratory a swab taken from a suppurating laceration on the body of an infant, delivered by the forceps method. A culture made from this material showed a gram-positive bacillus, beautifully barred, and morphologically indistinguishable from the bacillus of diphtheria.

The fermentation reactions of this organism placed it in the species group B. hofmanni. A pure culture of the bacillus injected into a 250 gram guinea pig killed the animal in 48 hours. The autopsy failed to show lesions characteristic of diphtheria.

*The bacillus which so resembles the bacillus of diphtheria is sometimes found to be the cause of ulcerative lesions and to be markedly pathogenic for guinea pigs. Here again, the humble guinea pig decides the question as to whether the organism is or is not a true toxin producer.—W. W. R.

PREVALENCE OF DISEASE

March Report

Cases Reported

	February 1925	March 1926	March 1925	Average 5 years
Pneumonia	754	1,595	847	935
Tuberculosis	434	475	406	456
Typhoid Fever	21	35	37	55
Diphtheria	382	398	340	614
Whooping Cough	1,314	1,176	364	530
Scarlet Fever	1,500	1,779	1,717	1,505
Measles	7,798	8,269	782	1,489
Smallpox	32	30	80	397
Meningitis	8	11	19	18
Poliomyelitis	3	3	3	4
Syphilis	1,154	1,214	1,301	895
Gonorrhea	1,200	711	843	717
Chancroid	3	15	11	13

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health

March, 1926

	+	−	+−	Total
Throat Swabs for Diphtheria	.....	.....	....	2173
Diagnosis	42	654	....	.....
Release	167	269	....	.....
Carrier	10	998	....	.....
Virulence Tests	16	17	....	.....
Throat Swabs for Hemolytic Streptococci	.....	.....	....	1506
Diagnosis	334	164	....	.....
Carrier	230	778	....	.....
Throat Swabs for Vincent's	19	673	....	692
Syphilis	.....	.....	....	6671
Wassermann	8	21	1	.....
Kahn	1263	5288	90	.....
Darkfield	.....	.....	....	.....
Examination for Gonococci	168	1368	....	1536
B. Tuberculosis	.....	.....	....	611
Sputum	110	469	....	.....
Animal Inoculations	4	28	....	.....
Typhoid	.....	.....	....	164
Feces	25	66	....	.....
Blood Cultures	2	20	....	.....
Urine	2	4	....	.....
Widal	9	34	2	.....
Dysentery	.....	.....	....	48
Intestinal Parasites	.....	.....	....	28
Transudates and Exudates	.....	.....	....	175
Blood Examinations (not classified)	.....	.....	....	558
Urine Examinations (not classified)	.....	.....	....	638
Water and Sewage Examinations	.....	.....	....	691
Milk Examinations	.....	.....	....	22
Toxicological Examinations	.....	.....	....	14
Autogenous Vaccines	.....	.....	....	14
Supplementary Examinations	.....	.....	....	369
Unclassified Examinations	.....	.....	....	861
Total for the Month	.....	.....	....	16811
Cumulative Total (fiscal year)	.....	.....	....	159787
Decrease over this month last year	.....	.....	....	8744
Outfits Mailed Out	.....	.....	....	15942
Media Manufactured c.c.	.....	.....	....	523270
Diphtheria Antitoxin Distributed, units	.....	.....	....	43168000
Toxin Antitoxin Distributed, c.c.	.....	.....	....	53600
Typhoid Vaccine Distributed, c.c.	.....	.....	....	788
Silver Nitrate Ampules Distributed	.....	.....	....	13660
Examinations Made by Houghton Laboratory	.....	.....	....	1896

Secretaries' Conference of the Michigan State Medical Society, Held at the Rowe Hotel, Grand Rapids, Mich., March 30, 1926

Dr. Jackson: The meeting will please come to order. The first speaker upon the program for the afternoon, who will now address you on "Statement of Aims and Purposes of Secretaries' Conference as Related to the State Society," is a gentleman whom you all know—Dr. Darling, our President. (Applause).

Dr. Darling: Mr. Chairman, and members, I wanted to be sure that he stated this correctly, so I turned to this and I find that he has the statement pretty nearly right, "Statement of Aims and Purposes of Secretaries' Conference as Related to the State Society."

Secretaries change, societies change, and sometimes the people change with reference to what they may think of Medical Societies and meetings. Several years ago I was Secretary of the Washtenaw County Medical Society. I did not occupy that office very long; whether I had greater ambitions, or whether the Society had greater ambitions, I have forgotten. I was intending to look over the minutes of those meetings which were sent in to Detroit for publication, but I was afraid to look at them for fear I might read between the lines the real reason why I ceased to be Secretary of that County Society.

The reason for such meetings as we have here today may be classed as two-fold: One is that you have come here to get the aims and relations of the State Society; also the aims and relations of the American Medical Association, what they are trying to do. That is one thing for you to get, the trend of Medical Society meetings, and what they mean, and carry that back to your County Society. Much will depend upon the manner in which you accept these things which you gather here as to what you can carry back. Another reason for your being here is that as Secretaries you bring to us, to the Council, to those who may be engaged in the State line of work, or the American Medical Association, some of the ideas of your local Societies; which you need, what you want done for you, and what your Society wants done, as a Society, what they would like to have done for them. The organization of medicine has become a real live thing, especially in the State of Michigan, and the real life of this Conference will depend on how much push and energy the Secretaries of the various County Societies gathered here will put into it. Now that is why you are here. Our aim is to see how much energy can be expended in putting this plan over. Well, what is our plan? It does not matter so much about the plans and purposes, but you are to carry these back and you must gather enough force, after you have heard these plans, to carry it back and see that it is properly put to your Society so that it can be accepted.

Now there are some things that I have in mind about this organization. There are four things which enter into the practice of medicine, or the organization of medicine. There is the doctor, the public, the hospital, and the nurse. All of these are closely related, and they are becoming more closely related all the time. They are so closely related that a committee was apointed by the State Society at the last meeting to take up this nursing situation. I had the privilege the other night of talking before a district meeting of the nurses, and of being present at their business meeting, and it would astonish you if that could be printed, to find the things that they have in mind, about the eight hour day, about whether a nurse shall work here or work there, and all of that. It was very much more like a labor union-meeting than it was like a meeting of nurses. I told them so, too. I told them that this meeting was pending here before the State Society, and that this committee had been appointed, and it will depend on most of the Societies of which you are Secretaries what you will be able to write into this committee and state your ideas regarding the relations of nursing to your practice. Now these things ought to be attended to. These personal matters should go to the committee, if you have any thoughts regarding this relation. Then we have the hospitals; many of the hospitals in the state are teaching hospitals. Every hospital that has an interne has become a teaching hospital, that is, one that is carrying out the prescribed interneship of the examining board. These hospitals have been regulated by the College of Surgeons to some extent. There are other hospitals that the College of Surgeons will not see. There are some organized that are caring for patients that you would not want to see, or the public would not care to see, would not want to be there.

These hospitals should be noticed in some way by the Council of this Society. I don't know just how, but there should be some way of getting at these hospitals, as to what they are doing, what they contain. Every practitioner ten years from now will have to be affiliated with some hospital, some hospital in the state; that will certainly come about, I can see that coming, and you must look to it very carefully that the hospitals do not become the directing points for your medical profession. You will have to be watching out for that, because there is a tendency for that to grow in that way. This thing has to be guarded at all points, and the only way that this can be controlled or watched out for will be by the alertness of the secretaries when they come to these meetings, bringing information as to what is going on in your county, what new hospitals have been founded in your county, or where hospitals should be located. It seems to me that the State Society could use a great deal of influence in regard to the location of hospitals in an advisory way. And then about the staffs which go in connection with these hospitals. Now these are some of the things that we will touch upon sometime later, but I want you to get this one thing about the "aims": That you are to watch for the aims as they will be put forth by the men interested in the American Medical Association today, and also such things as you hear here, and carry them back with you and tell them in a forceful way to your whole Society. Also don't be afraid to speak up if there is anything that transpires here concerning medical questions which you do not approve of, or which you think that the State Society would not approve of. (Applause).

Dr. Darling: The next speaker is one of National reputation. He has been connected with the American Medical Association so long that he simply belongs to it. The title of this paper is "A Practical Forecast for Scientific and Organized Medicine." Dr. Warnshuis.

Dr. Warnshuis: Mr. President, Dr. Cramp and members of the Council and Secretaries of our State organization: I still hold my residence here in Michigan, and not as connected with the American Medical Association as Dr. Darling intimated.

Two years ago, I think it was, that we started this first series of Secretaries' Conferences, it being felt by the officers of the Society and members of the Council that it would be well if at least once a year the men who are the wheel-horses of our organization in Michigan could get together and become acquainted with some of the problems that confront us in organized medicine, as well as solving the problems and putting that solution in the field of activity. So these conferences were started some two years ago, and the Council has perceived pretty clearly that resulting from each one of these conferences great good has come from them, with renewed organizational activity throughout the state, and that is the reason, as Dr. Darling has just told you, that we are meeting here today.

On the former occasions we have had some stated or formal papers presented by various Secretaries, setting forth their individual experiences and difficulties in their respective counties. This year in arranging the program we thought it would be a greater benefit if we resolved ourselves into a round table discussion, where each one could take part and present his experiences, his difficulties and his misunderstandings, particularly of any of the organized medical efforts that he is seeking to put over in his county, so that we might be of mutual help. I am not going to try and give you a practical forecast for scientific and organized medicine. To do so would lead us into a discussion that would cover every field and avenue, not only of medicine, but of the public and society in general. Having served as Secretary of the County Society, as has Dr. Darling, for five years, and then being permitted to serve for a number of years as Secretary of our State Society, I know the troubles and problems that present themselves to each one of you, the time and effort you devote to the work, and the thanks you get for it. However, I feel you and I are both making a contribution that we ourselves may not quite appreciate, but which nevertheless is a motivating factor in the progress that we are accomplishing and recording in organized medicine today. The day is past when a Medical Society is only a meeting of doctors to consider their clinical cases, or the theories and practice of medicine, or their personal experience. That function still exists and must be continued, because it is for our personal benefit that we must render support to that activity. However, there has been thrust upon the County Societies, and you as officers of County Societies, a new duty that the trend of the times and the change in our World conditions have brought about which makes us more than mere doctors; it makes us guardians of the public health, and along that line we must assume the responsibility and equip ourselves for the activity that we subscribe in acquainting the public with Organized Medicine's Aims and Purposes, and that which organized medicine can do for the

people of this country not only in prolonging their life, but in preventing disease and making their life more comfortable. To that end organized medicine today is setting forth on a new field of endeavor; and we in Michigan may well be proud of the fact that we are "trail blazers." I want to say, not boastingly, because I do not assume any of the credit or take any of the credit for that which Michigan is doing now; if any credit is due it is due to the members of our organization, to the officers of our County Societies, for the trail blazing that we are accomplishing in Michigan. I am telling you in the presence of Dr. Cramp that Michigan is receiving the attention of the organized profession of the country on the activities that we are carrying forth. Now we are going to succeed only as you men continue on in the future as you have in the past few years. These aims are set forth in the topics enumerated on the program which has been distributed to you. I am not going to start a discussion of them now, but I am going to close right here and refrain from saying anything further at this time, but will interject from time to time as these subjects are taken up, the points we want to put over, because if I attempted to explain them now that would finish the program and not leave anything for anyone else to say. (Applause).

Dr. Darling: The next on the program is an address by Dr. Arthur J. Cramp, Director of the Bureau of Investigations of the American Medical Association. Dr. Cramp. (Applause).

Dr. Cramp: Mr. President, and Gentlemen: I feel in coming before you today a little hesitancy, because I have no address to give you. As you know from the program, Dr. Olin West, Secretary and General Manager of the Association, was to have been with you. Dr. West is sick and yesterday just before noon he asked me to come in his place, and naturally I had no time to prepare any address, and all I can do today is to talk informally and ramblingly on the work that I know best; that is, the work that I have been engaged in now for nearly twenty years at headquarters under what we now call the Bureau of Investigation. The Bureau of Investigation is the present name of what for many years was known as the Propaganda Department of the Journal of the American Medical Association. We still have, as you know, a department in the Journal under that name. The work of the bureau grew out of the work of the Council on Pharmacy and Chemistry. That Council was founded, as most of you know, about twenty-five years ago, with the object of giving the profession the facts regarding commercialized therapeutics. As the profession was given these facts it began to take notice of some closely related facts, namely, that the medical profession was not the only group that was being humbugged in the matter of proprietary medicines. The public was also being humbugged, but with a different group —that group which we usually speak of as patent medicines. We began getting, a year or two after the Council in Pharmacy and Chemistry was founded, an occasional inquiry about patent medicine and about quacks. At that time we had no information on file worth mentioning on this subject. About that time I came to the Association Headquarters and was on the editorial staff of the Journal, and possibly for want of someone else to pass the thing over to, these questions were passed over to me, and I began casting around to get the material to answer the questions, and there was a hopeless dearth of material, no work worth mentioning had been done by any organization. A few states had, through either the health departments or the Agricultural Experiment Stations made an occasional analysis of a patent medicine. Practically no states had done any work in the way of driving out quackery, or even accumulating data on the subject. So that we had to start with a virgin field, but now for very nearly twenty years—it will be twenty years next December—we have been accumulating at 535 North Dearborn street, all the material that we could get from any source that was reliable information on patent medicines, on quacks, and on those broader problems of what we might call pseudo-medicine, or quasi-medical organizations. That material is, as I think all of you know, available to every member of the profession, and for that matter largely to any member of the general public who cares to write for it. We have material that has been accumulating for nineteen years and over, all of it filed, all of it indexed and cross-indexed, so that our index file today has between 125,000 and 150,000 cards in it, which allows us, without a great deal of effort, to find what we have put away in these files. Most of you probably think that the main work of the Bureau of Investigations, or as we used to call it, the Propaganda Department, is that of preparing an article each week for the Journal, and occasionally an article for "Hygeia." That is the smallest part of the work. The great bulk of the work lies in answering the thousands of inquiries that now come into that bureau. When I first went to the Association we did not get a letter from a layman once a month. Now we are answering thousands of letters every year; we are answering, in fact, almost as many letters from laymen in the Bureau of Investigation, as we are from doctors; they are pretty nearly half and half. Since the creation of "Hygeia," which has given us a wider contact with the public, our correspondence with the laymen has increased. The Bureau of Investigation is thus a clearing house of information on the subject with which it deals. It is for the use of the profession and it is for the use of the public. It is a service that is maintained at the expense of a good many thousands of dollars annually by the medical profession of the United States as a purely altruistic feature. Not only does the association not get a cent for that work, but, as I say, expends in the neighborhood of between fifteen and twenty thousands dollars annually in maintaining that service. It is true, of course, that that service, like any other service, makes friends for the Journal and for the Association. To that extent it is an asset, but in every other respect, financially speaking, it is a liability; and we find that it makes a greater impression upon the average intelligent layman when he learns that that is one of the numerous services maintained by the medical profession in the interest of the public, and in the interest also of the profession. We are getting now, and have been for the past few years, a number of groups that come to headquarters to see what is being done there. Last Saturday afternoon Professor Frank of the University of Chicago brought 50 or 60 teachers, all of them from Hammond, Indiana, that particular group. These teachers are doing extension work at the University; they are studying, of course, economic, sociological, and public health problems. This is only one of the groups that Dr. Frank has brought there. He has brought a number of other groups, and other professors of that University, and other Universities have brought simi-

lar groups at other times over to headquarters. We address these groups, the heads of the different departments, giving them in brief outline just what those departments are trying to do. Then the group is shown through the building, so that they can see what is going on. I am certain that every member of such groups becomes a permanent friend of the medical profession after having made such a visit. It is not any longer possible for the enemies of medicine to talk about the medical trust and the medical octopus and try to build up an aurific phantom of what organized medicine is. They can't do it with men and women of intelligence who have had the opportunity of visiting 535 North Dearborn, and going all through the building and seeing what is being done, and realizing that the medical profession has nothing to hide, that it lays its cards on the table face up, and that the work that the enemies of medicine would have you believe is a selfish work, is really a magnificent piece of altruism. Such visits as those make friends for the medical profession, and what is more important, make friends for scientific medicine; and such friends are necessary today, when you know how well organized the enemies of scientific medicine are. It has been my experience that a great many members of the American Medical Association and Fellows of the American Medical Association do not really understand what headquarters has to offer them in their problems. I can't tell you the various things that the Association has to offer because it will take too long, and I am not the one to speak about it. Dr. West could have given you a brief outline of all of the various services, but all that I can tell you is about the one particular niche in the organization that the Bureau of Investigation fills. The Bureau has, as I have already said, a larger amount of data on Pseudomedicine than is to be found anywhere else in the world. That is not surprising when you consider that no other organization has attempted to do the work that the American Medical Association has attempted to do in this line; nor has any other organization begun to spend the money that the Association has spent in this work. The point is, what good does it do you? What good does it do Dr. John Doe in the field? The good is this: That when a problem comes up to you that in any way is covered by the work of the Bureau, the Bureau stands ready to give you all the possible aid and information that it has.

To come down to specific cases. Every man here, I suppose, knows of some practitioner either an osteopath, or possibly a physician who is using the so-called "Abrams Treatment" in his county somewhere, possibly a number of them. The Abrams treatment has been pretty thoroughly discussed in the Journal of the American Medical Association. The absurdities of Abrams' theories, the commercialism back of the whole thing, and the type of men that are the disciples of the Abrams' cult, have all been dealt with in detail in the Journal of the American Medical Association. That matter has been reprinted, and it is available to anyone that will ask for it, and a great many thousands have asked for it, but there are many thousand others that do not know about it and to whom it might be of value. Of course, the Abrams' cult itself is dying about as rapidly as a cult ever dies since its high priest passed over a year or such a matter ago. But there are, I suppose, fifteen or twenty imitations of the Abrams' cult on the market today, and they, because of the commercial interest behind them, are being kept alive to the best of the various abilities of those that are exploiting them. Our friends, the chiropractors, have tried to offset the great boost that Abrams gave to osteopathy, for the osteopaths were the largest group of disciples that Abrams had. The chiropractors have tried to offset that by their neuro-calorimeter, which, as some of you may know, is merely a thermophile which is applied to the spine or on each side of the spine, and will show variations in temperatures in the two parts, so that the patient can see the little finger move and the little dial move in the electroscope that they have, to make them think something is being done. The neuro-calorimeter has also been dealt with quite extensively, and as extensively as it deserves, and material on that is available.

Getting into the medical profession itself, possibly one of the most widespread pieces of pseudo-medicine today is that of the Koch treatment for cancer, which is a distinctly Michigan product. It is a dangerous piece of quackery because the man that is exploiting it is a brainy man, an educated man. Koch has education and he has knowledge; he ranked pretty high as a physiological chemist even before he graduated in medicine, and after he was graduated in medicine about a year he began the exploitation of his so-called serum for cancer. I have spoken to several of you individually today, telling you what problems we are up against at headquarters in the way of getting data on this matter. We have, as you know, published three or four articles on the Koch treatment. That matter has been reprinted in a leaflet form, in combination as a matter of fact with another cancer cure, the so-called Glover treatment. This is a little four-page leaflet dealing with the Glover and Koch treatment. Now what the Bureau of Investigation needs more than anything else right now is to get facts from the field regarding victims of the Koch treatment. Hundreds of doctors have written in asking us about the Koch treatment, and we have sent them what we have, but comparatively few have written in telling what they know about individuals who have taken the treatment. If one half of the doctors who have had any experience with this matter would write in, we could prepare an article that would damn the Koch treatment so that it would be driven out of the United States; I feel as confident of that as I do that I am living. I know and you know that he is not curing carcinoma, but there isn't much use in merely arguing that he is not curing carcinoma from an academic standpoint. If we can collect a hundred or two hundred cases of unquestioned carcinoma that have taken the Koch treatment and died, we will then have done more to destroy the public's confidence in this sort of thing than all the articles that we could write or distribute; and I can promise you that if such data will be sent in that we will make use of it, and we will get it in form so that it can be used to protect the public and also the profession against this particularly vicious piece of exploitation. You may be interested in knowing that two members of the Chicago Medical Society have in the last week or ten days been expelled because of their gross commercialism in the use of this Koch remedy. These two men charged a working man, earning about $150 or $175 a month, somewhere in the neighborhood of $300, with the verbal promise that they would cure his wife of cancer. Of course, they did not cure her, and he had to give his note for part of the money. When he found that she was not cured and that the thing was a fake he began to kick, and he came to us with his kick, and we told him to carry it to the Chicago Medical Society, and he carried it there. Then these two doctors tried to buy him off by offering to return all the money he had paid them and then some. He, very fortunately, stood by his guns and told them the story. The censor committee of the Chicago Medical Society have acted on it and have expelled the two men. That is just one instance. Last week I went through our files on the Koch remedy and picked out a number of letters, I have forgotten how many, sent in by physicians over the past four years, and in each case the doctors who said they had patients who had gone to Koch or were going to Koch, I wrote them last week asking them if their patients did go, to tell me what

the outcome was. I expect within the next week to get an answer to those inquiries. It may be a week or two before they come in, because my experience is that I may have to write three or four letters to some of the doctors before I get them to answer, although I merely asked them to make a brief statement on the same sheet of paper I wrote the letter on, and I enclosed an addressed stamped envelope, so it would not take more than a minute or two for them to make the reply if they have the information at hand. It is that kind of work that will help the Bureau and help you. Headquarters can't do it all; it is a co-operative affair, and before we can get information that will be of value to you, you have got to send us the information in the aggregate so we can collect it. The Abrams' reprint is this one, a sixteen-page affair. We have additional ones if anyone should desire them.

You may have in some of your localities this experience: The Macfadden interests may have sent their representatives to your county or to your city with the idea of staging a so-called "health-week." They have done that in many parts of the United States. Of course, Macfadden is not interested in health at all; he is interested in Macfadden. But they put up a plausible story, and usually they work through the social clubs, the Kiwanis, the Rotary, the Lions, etc. We have found that whenever such cases have occurred, if the physicians locally will write in to us we will send them a reprint that we have dealing with the whole Macfadden fakery and cult exploiting the health interests, and we will send them enough copies of those to put in the hands of the leading men of these social clubs, that Macfadden does not get any hold in that town; they fold up their tents and go somewhere else. Every state secretary and every secretary of the health boards of every state in the union has been notified of this reprint. They are not for sale, they are sent from headquarters in such numbers as may be necessary to those localities where the Macfadden interests are trying to stage their show, and so far we have been successful in heading off a number of shows. When I say "we" have been successful, we have not; the doctors have been successful in getting the stuff that they have put into the hands of intelligent men, the secretaries of the Kiwanis, Rotaries, or some of the social organizations, and when they have read this through they usually say, "Well, we don't want that sort of show in this town and we are not going to be used as cat's paws by the Macfadden interests," and as a rule the Macfadden interests then pass on.

The American Liberty League is another organization which has a Michigan stamp, by the way, because the founder of it was the quack Ensign of Battle Creek, the people that sold sugar of milk, you know, as a cure for everything that ailed you, at a fancy price. This organization is quite powerful financially. It enlists all the druggists' papers, including, of course, the Eddyites. At present in Chicago these people are carrying on an extensive advertising campaign, attempting to defeat the Bundesen campaign to get pure milk for Chicago from tuberculine tested cows. Who is furnishing the money I don't know, but I can guess as easily as you can. Obviously, of course, those that are interested in not having tuberculine tested milk for Chicago. That is only one phase of their activity. When smallpox breaks out in a given locality they will flood that locality with advertising matter urging the public not to be vaccinated. They are very strong on the anti-vaccination. These little leaflets, when put in the hands of the public, give them an idea what the American Medical Liberty League is. They see that George Starr White, who is quoted as though he were a leading authority in medicine—is only a quack, a plain, ordinary, common advertising quack, who has taken up every fad that seemed to offer any financial return, including the exploitation of patent medicine. It brings out further the fact that the men behind the American Liberty League are this Ensign outfit, which is also another patent medicine concern, and they begin then to see the reason for the opposition on the part of the American Medical Liberty League against scientific medicine, a reason the public would not see otherwise, that is, they would not get the angle; they would suppose, or they might suppose, that the American Liberty League was a purely altruistic affair working solely on principle, but when they have read the story of the American Medical Liberty League they say, "It is not a case of principle, but a case of interest."

The Defensive Diet League of America, I am not sure many of you will have that brought to your attention, because they are working through the dentists, but it may come to you indirectly. The Defensive Diet League of America was organized by a man named Harter, who is running a dental supply journal of a commercial type, and a dental supply house. Whether Harter is merely ignorant or venal is a question that can be left to your own judgment; but that he is ignorant there is no question. His idea of dietetics and nutrition are wholly bizarre. He quotes in the stuff he sends out from men like Macfadden and McCollum, or from Tilden of Denver, or Mendel of Yale; he doesn't know the difference. That work, as I say, may not come to you, although I think it probable that it will, because you will have some of your patients—and of course what is more important, I am speaking now to a representative group, and that means that each one of you represent a large number of physicians in your locality, and my object in mentioning these specific things is so that you will pass the word on at your next meeting, if you have the opportunity, of what the Bureau of Investigation does offer. It is not merely a place that will write letters or prepare articles for the American Journal. It is a Bureau of service, of service to the profession directly, but of course ultimately to the public, and that is the whole reason for its existence.

I have brought another advertising leaflet along that may be of interest. It relates to Radium Ore Revigator. This is being published very extensively, not only this one, but I suppose there are twenty on the market. Radium Ore Revigator is a jar lined with some low grade of radio-active ore. It will, when water is poured into it, give the water a low grade of radio-activity. It gives possibly twenty millimicrocuries in twenty-four hours. The Council on Pharmacy and Chemistry has set as its minimum standard for radium emanation generators, those that will generate not less than two thousand millimicrocuries of emanation. In other words, the radio-activity given by this device, or other devices on the market today, the amount of radio-activity is simply practically zero. You might just as well drink Lake Michigan water, which has radio-activity the same as any other kind of water. That is equally true of the radio activity of Hot Springs and one or two other springs in the country. That also means nothing, because it has not yet been shown that there is any natural spring that has enough radio-activity to have any therapeutic effect. Whatever effect you get from springs in different parts of the country, are due to different factors than the radio-activity of those springs.

Chiropractic: That does not properly belong to the Bureau of Investigation, because that being a cult with so-called colleges behind it, that together with osteopathy properly belongs to our Council on Medical Education, which is able to furnish you with information regarding chiropractic in all its various manifestations. We have a small leaflet here containing a number of short editorial comments that were prepared by the Bureau of Investigation, and

published in the Journal at different times on various phases of chiropractic, and both the Council on Medical Education and the Bureau will send those out; they are distributed by both departments. The reason that I have had them printed is because so many physicians think that anything dealing with the chiropractor must of course belong to what we call the "fake" department of the American Medical Association, the Bureau of Investigation. In a way they are right; there is surely nothing fakier. But it became necessary, because there is an educational question involved in cults like osteopathy and chiropractic, to turn over material which I had for many years in the bureau to the Council on Medical Education, the handling of it.

Then we have a number of these pamphlets which I have brought along, and which you know about; they are the regular pamphlets issued by the Bureau dealing with epilepsy, female weaknesses, etc., covering practically every field that the patent medicine faker and quack goes into. Over a million of these have gone out in the last fifteen or twenty years, and a very large proportion to the public, and the public is calling for these more and more, because it has learned about them through the school children. In the past four or five years there have been four or five authors of text books for high schools and colleges that have called on the Bureau for material to incorporate in their books. Hodgen's General Science, he was quite interested in the work of the Bureau, and asked me to prepare a chapter for his book on general science. I told him I would not prepare one, but I would go over any he would prepare and see that it was accurate and according to the facts. Hodgen did this, and we wrote him a number of things regarding different patent medicine fakes, and it has become a part of Hodgen's General Science. As a result one class alone in a single Chicago high school sent us 120 letters not long ago in one day, because they had come to that particular chapter and the teacher told each member of the class to write to the Bureau for information on some one patent medicine, and we had to give them 120 letters containing information on 120 different patent medicines, and we did it. Now, that work is good work for scientific medicine; it is good work for the public. That is only one book. Then there is Hunter's Biology. He has one or two other books on allied subjects. There are two or three other books, all of them going to either secondary schools or colleges or normal schools. That is bringing the school children and the teacher both into contact with scientific medicine through the American Medical Association. We have, as you doubtless know, forty educational posters. If you have ever attended, and you have, of course, meetings of either State or National Associations you have seen the posters of the Bureau of Investigation, or as we used to call it, the Propaganda Department. We have forty of these posters dealing in no uncertain terms very specifically with specific fakes, and those are being used in schools and colleges, county fairs, and city fairs. We will donate them to any County Society without a cent's cost to the Society that will promise to display them at any county fair or any other health exhibit that the county cares to stage or does stage. That has been done repeatedly. That work is, I think, making friends for scientific medicine. We have also a number of lantern slides that are at your disposal at a nominal rental cost, should you want to give a talk on patent medicine and quacks. This set of 62 slides is arranged so it can be used as an automatic lecture; in other words, there are legend slides as well as illustrative, the legend slide being interpretive, telling a story. But the way it is usually used is for a physician or health officer to use them and to elaborate on the legend. Those are valuable. Recently we have had the same set of slides prepared on a strip of celluloid for one of these small projecting apparatuses that can be carried in a case about the size of an ordinary suitcase, for use in country districts where electricity is available, and there are few places today where it is not available. There you have the whole thing; you don't have to bother about renting a projecting apparatus or an operator. You can be your own operator or get a high school pupil who merely pushes the button when you want the next picture. It throws the picture on a screen. That is for rent and at the same rate as the slides. The slides are generally used where you can show in a large hall and where you have a good projecting apparatus; but where you want to use it in a small schoolroom and have some difficulty in getting the apparatus, we have the whole thing in this other form, and you can get it at the same rate, I think about $1 a day rental is all.

Now I think that I have more than used the time that I ought to use, but if during the afternoon any question arises in your mind relative to what the Bureau is and does, I wish you would make it a point to ask me and I will do my best to tell you what we have and tell you how we can be of mutual benefit, and I do hope, in closing, that each one of you will, when you get back to your home city, make an effort to get in touch with other members of the profession who may be able to send s data on this Koch problem, as we need it. I say "we" need it; the profession needs it, the public needs it, and the only way I know of getting it is the way I am suggesting, that the profession should send it in. I thank you. (Applause.)

Dr. Warnshuis: We now come down to the real practical part of our program, and at the request of the President we are going to try and get each one of you to participate in the discussion that will now follow the outlined schedule before you. I am going to ask Mr. Harvey Smith, who is our Executive Secretary, to just cut down to half what he has written, and take up for a moment the Minimum Program, and then we are going to discuss that among ourselves and tell you a few more things about it. Mr. Harvey Smith. (Applause).

THE MINIMUM PROGRAM FOR COUNTY MEDICAL SOCIETIES

The Minimum Program for County Medical Societies is indigenous of Michigan. It is a plan of work designed to advance scientific medicine in every nook and corner of our state, both for the physician and the individual. No "fly-by night" conclusions are involved for we believe that intelligent procedure is the basis on which this program has been adopted and advocated. The intelligent individual is considered intelligent because of ability to find common factors. His process is (1) gathering the facts involved in-so-far as possible to attain them, (2) forming a judgment and (3) acting or putting the judgment into action. If we compare this procedure with unintelligent, which is usually one of acting first, the significance of a program of intelligent procedure is readily apparent. The purpose for intelligent action is apparent not only to individuals, but to organizations, groups of

individuals, clubs, political bodies or governments. Being intelligent and educated members of the human family, nothing less than intelligent action could be or should be tolerated by ourselves, even though there may or may not be such a demand of us on the part of other members of the human family. It is our duty.

Some of the facts that have led to the establishment of a basis for the Minimum Program are as follows:

1. A wide variation in the work of the County Medical Societies.
2. The accomplishments of a Society are not based upon the size of the membership, but on the desires and interests.
3. The scientific programs are regular in some Societies and not in others. Programs are arranged on short notice.
4. No basis for constructive yearly advancement exists in programs of many Societies.
5. Most all small and medium membership Societies have difficulty in securing speakers.
6. Lack of accord and fellowship in the membership of Societies.
7. Societies have little or no relationship to the community through organizations, institutions, schools, individuals or the press.
8. Lack of faith and regard for the profession by the public as shown twenty or more years ago.
9. The sick alone have been considered.
10. The Secretary is usually made responsible for all the activity of the Society.
11. Neighboring Societies show little neighborly spirit.
12. There is an apparent lack of friendly working relationship between the medical and other professions.
13. Committees when appointed have given little attention to the work of their office, due largely to the fact that no definition of work was available or instructions were issued.
14. A number of Societies have broadened their field of activity to include the community and found the results valuable.
15. Any constructive activity on the part of any Society has improved the standing of the Society with the membership and with the community, has increased friendship in the Society, has permitted little room for cultists to practice and has put them out of business.
16. Constructive activity and proper relationship with the community has brought about constructive support from the community.
17. Investigational work on the part of the American Medical Association, relative to physical examinations, has established the fact that the medical profession has a definite duty, to the well as well as to the ill, in every community.

To summarize these and other facts that may be added, the basis of the Minimum Program is to help the physician member advance the science of medicine and to inform the public as to its actual value to each individual and to the health of the community as a whole.

These facts resulted in a definite effort to formulate a program that would not be burdensome to any Society but would on the other hand be flexible, adaptable to any Society and meet the conditions of any Society as revealed by the facts determined within any Society jurisdiction: a program that would permit of change as new facts determined and would lend itself to progress made within the profession and in organized medicine. The result has been as you all know, the adoption of the Minimum Program by the Council and by many of the Societies of the state. For your information you may be glad to know that other states have become interested in this definite constructive activity by your State Society.

Dr. Warnshuis: Now you men know about this minimum program as it has been outlined, and a goodly number of our County Societies have adopted it, some have not. Now we would like to take up with you and have you tell us what you think about it, or make any comment that you want to, or request for information. The first section relates to Scientific Programs. Are you having any difficulty in carrying out the scientific program fully? Dr. Moore is going to say something on that.

Dr. Moore, Cadillac: Mr. Chairman and members, it is pretty hard for me to get up and say what we are doing, because it may appear or look a little like boasting, but I do think that no society or no organization or no individual can get anywhere unless he does have a somewhat good opinion of himself. Naturally, being Secretary of our Society, in accepting of that office I duid accept it without thinking that I would do something to help our Society. I also have had the pleasure of working with superiors, and enjoy following out anyone's program who pretends to be and is a good leader and who has a program to put forward. When we received your program as it is outlined here, we took it up and discussed it in our Society and decided to adopt it and arranged our program accordingly. I do not know of any part of this program that is going to be difficult for us to carry out. We perhaps are fortunate in having men who are willing to give of their time and attention to carry out this program. Our laity part of the program has been carried out for some time, and we have, through various noonday luncheon clubs and fraternities and parent-teachers' associations, been able to appear before the public continually and talk on these problems. We had a very interesting program a short time ago at our noonday Exchange Club luncheon. The subject which we had up was periodic physical

examination. We had a little comedy and a little wit and humor and two dress-rehearsals beforehand, and knew what we were going to do, and we didn't repeat anything, and the doctors did very nicely, and I think made a very good impression with that group of men, and we heard some very favorable comments on it since. I am sure that we have been perhaps a little reticent, a little backward in appearing before the laity on these various subjects that they are really interested in, but I must say so far as our Society is concerned we are crowded with invitations. We have places to appear and subjects to discuss and are getting along very nicely with our charity organizations, with our health organizations, and we have a very active, working group of citizens in Cadillac. We perhaps are a little better situated than some of the smaller Societies. We have three counties in our Society and we have a nice little hospital. We have a 6 o'clock dinner to begin with, and then our round table business meeting in the dining room; then we adjourn to the staff room of the hospital and take up the hospital reports and discuss the different cases, and also have a report from each doctor on the deaths that he has had in the hospital for that month, and bring up any matters pertaining to the hospital or anything that the staff has to bring before the Society, and then we drift over from that to our regular program, and it has seemed to work out very nicely. But as far as working in and through our school system and our Red Cross and Anti-Tuberculosis Society, and being able to put over and keep the medical profession constantly before the public, we have been very fortunate. We have a school nurse in our school system; we have dental inspection by a nurse paid for by the city; we have county contract work paid for by the county. We also take on, in addition to that, a couple of our institutions, the county farm and county sanitarium, just outside of the city, and are paid for that, and we have been able to do this work. When you can do that it seems to me that we have the public with us. That is not bragging or boasting, but I think the medical profession in our county and in our part of the state has the confidence of the people, and so-called quacks, nostrum peddlers and chiropractors don't get a great ways up there. Our dental profession goes along with us very nicely. We have a social function once a year, and an annual picnic which they now plan weeks and months ahead, and of course, anticipation is the best part of any trip, and now they are kidding each other about our annual picnic that is to occur. So all in all I think I can report for our Medical Society, and I think your Executive Secretary will bear me out in the statement, that we are alive up there and are willing to do our part in carrying out this minimum program. I thank you. (Applause.)

Dr. Warnshuis: I always have had admiration for the doctors who were members of the Tri-County Medical Society, of which Dr. Moore is Secretary, because I think they are unique in one respect; they are the only County Society that causes the County Poor Supervisors to defray their annual dues to the State Society. They do the county work and charge them for it and pay their dues out of it, as they pro-rate the work among the members of the Society. They are unique in that respect.

If you will cast about you will find the public is becoming intensely eager in learning about scientific medicine, and further than that, how they can employ scientific medicine to save themselves and their friends from disease and sickness and prolong their life. The American Medical Association, through its constituent and component associations, is stressing this question of periodic examination. It is also being stressed by our lay magazines, who are urging people to have an examination at least once a year, or as the slogan is "an examination on your birthday." As a result of this there are coming to the doctors' offices more and more people who are asking for a physical examination. That physical examination means more than to feel of the pulse, look at the tongue and ask a few questions. It means a complete physical examination, and the big complaint that has come back to men who are familiar with this situation is that the doctors are failing to render the service that the people want. As a result of that the American Medical Association created a committee on periodic physical examination, which devised a manual for the guidance of the doctor, telling him the details of that examination, and after having examined a patient to evaluate that examination to the patient by giving him proper advice. We found doctors throughout the country—not Michigan alone, but throughout the country—who are woefully negligent in this examination and are falling down and being severely criticized by the public. As a result of that we are endeavoring now to bring to the attention of the profession in Michigan, the intense importance of a complete, thorough physical examination; and at the direction of the Council of the State Society we purchased a sufficient number of these manuals, which we purpose to distribute among the members of our profession, and it is our purpose, and that is why we are taking up this question at this time, to ask your County Society during this spring of the year to put on as their scientific program at some meeting night of their Society a Periodic Physical Examination Night; to have that meeting addressed by somebody who will give you a talk upon how best to conduct the periodic physical examination and to evaluate it to the patient. Now these manuals, which we are going to present one to each Secretary here today, are available at our office, and if you will, with your prgram committee, set forth and designate a Periodic Physical Examination Night or afternoon, or whatever time you have the meeting of your County Society, at any date, we will not only try to help you to get a speaker for the meeting, who will discuss the subject, but we will also supply you with a sufficient number of these manuals so you can distribute them to your members. In this way you ought to be able to

get a full attendance at your County Society meeting. To further elaborate this question I am going to ask Dr. Corbus, who is not only Councilor, but also Chairman of our Councils on County Societies, to add a little to what I have said, and in the meantime we will pass these around. Dr. Corbus.

Dr. Corbus: I do not know that I have very much to add to what has already been said. However, Dr. Darling has given me a slogan, which he whispered in my ear just now: "How long do you want to live? How long are you going to live? Ask your doctor."

I doubt if there is any group of men who have more need of a periodical examination than doctors. I do not believe that there is any group of men who have more need of a periodical examination than doctors. I do not believe that there is any group of men who are more careless about themselves, about their health, than we are. I do not find very many of my doctor friends taking the time to visit this man in this hotel—I don't remember his name now—who gives these physical exercises, or going over to the gym to work, but I find a great many of my patients among the business men who seem to find time for the daily exercise. It seems to me that inasmuch as example is better than precept, it might be a thoroughly good idea if we would have a combined example by each one of us having a physical examination through a movement on the part of the County Society itself, so that each man would be required to bring in a certificate that he had been examined, in very much the same way as the school children have to present a certificate that they have been vaccinated. I suggest this, and I believe it would be a very effective way to show the public that we believe in what we preach. I believe that this book (A. M. A. Manual) will be of a great deal of value to you. The examination of the individual who does not come to you with rather definite symptoms, who does not come to you with a very definite reason for the coming, offers a greater problem for examination, it seems to me, than the patient that you are more accustomed to handle. In the first place, the individual has to be examined in rather greater detail, if you are to do a first class job, just as the patient who comes to you without definite symptoms requires a lot more time than the patient on whom you can make a diagnosis just by his walking in the room, because he happens to have a very definite ataxic gait, and then to handle that patient so that he will be sufficiently impressed by the advice that you give him to care for himself in a proper manner. I say that because if a man has a pain, and you tell him what to do for that pain, he is very likely to do what you tell him. But you, yourselves, know, as I do, that when you have something which is perhaps going to be moderately serious in the future, but at the present time is not annoying you, it is so very easy to put it off. So that you are bound to impress your patient of the necessity of doing the things that he should do to prevent something occurring which is going to be unpleasant or serious or dangerous in the future, and yet not to frighten him in so doing. In the days when the taking of blood pressure was less common than now, when it was newer than it is now, patients were made to have a great deal of concern about this because their blood pressure happened to be somewhat above normal, and even today the one thing the patient comes in to see you for, who has not any special symptoms that he recognizes as being due to something that he knows, as having had symptoms due to that certain thing before, is his blood pressure. He will say, "Doctor, how is my blood pressure?" The easiest thing with which to frighten a patient, so that it makes him unhappy, is to tell him his blood pressure is up. So that we must be careful not to frighten unreasonably the patient, and yet to make him concerned about himself when things are definitely wrong. As you very well know, a blood pressure may be beyond the point where an insurance company feels justified in taking them, and yet the patient be in perfectly good condition; and the blood pressure may be normal and he may have a general arterio-sclerosis; he may have a kidney trouble; he may have many serious things happening to him, or beginning to happen to him in the cardio-arterial system, and yet his blood pressure is perfectly all right. So it seems to me that the fundamentals of a periodic examination is an examination in which you take time enough to give him the thorough looking over that he is entitled to have if he is sufficiently interested to come to you, and then a sizing up of the individual, as well as a sizing up of the things which you happen to find which are not entirely normal; a consideration of his habits; a consideration particularly of his eating habits; a consideration of the life that he leads, and a direction which will be put in a sufficiently emphatic manner so as to convince him of the importance of following them out. I am sure that you and the patient both will be benefitted by rather a careful perusal of this excellent plan for an efficient examination. (Applause.)

Dr. Warnshuis: Now that Dr. Corbus has finished speaking—you can never limit him to time—in taking up the other subjects of this section of the program I am going to ask the speakers to hold within the five minute limit, and when we have completed the last one of section 5, then you who have made notes, we want you to take the opportunity of asking questions or adding any comments that may occur to you.

The next phase of the Minimum Program, "Social and Informal Activities", I am going to ask Dr. Shackelton of the Kalamazoo Academy to tell us something of what they have been doing at the Kalamazoo Academy. Dr. Shackelton.

Dr. Shackelton: Mr. Chairman, Members of the Council, Fellow Secretaries: Never having been on the social committee, I want to impress you with the fact that I may not be as well qualified to speak upon this subject as someone else would be. It is well known, however, that general interest in the Medical Society has been declining for some time. It has been constantly harder and harder to get proper attendance. This may be attributed, I think, partly to the fact that during the war men were exceedingly busy and did not come out, and many of the men were away. Following that were the increased hospital activities, and the appointment of hospital staffs. The staff meetings had a tendency to take the place of the regular County Society meetings. You will notice in your staff meetings there is much less formality than in the County Medical Society meetings. It seems to me we must do something to break up the formality that has existed. Where men come together and say "Hello, Charlie," or "Hello, Bill," there is a more friendly feeling, a more intimate feeling than where men are constantly standing upon their dignity. This formality is broken down only by our social activities. Where do our social activities begin? In the first place, with the greeting and attention you give your speaker when he comes to address the Society. It is rather embarrassing for a speaker from out of the city to come in and find no one to meet him at the station, and to have to wander around at the hotel, or perhaps inquire where the meeting place is, and perhaps, as in some instances I have known, go off and get his din-

ner by himself and then go to the meeting place. There is quite a contrast shown by the way speakers are used in a town down in Indiana, where more is done for speakers than by any other Medical Society that I know anything about; where the guest of the evening is met at the train, where he is taken to the hotel and given a room at the expense of the Society; where some member of the Society is at his beck and call at all times, and where he is entertained until the time of the meeting and also until the time his train departs. That is a point I would like to impress upon you, because I have seen in our own Society and other Societies where I have been a guest for instance, where the speaker was not met, and where he was allowed to take care of himself from the time he entered town until he departed. The rest of the sociability takes place at the meeting itself. That means that the men who get together should be introduced to each other, and so far as I am concerned I think the best way to do that is by an informal dinner. During the past year at the Kalamazoo Academy of Medicine it has been our policy to have our meeting start with a dinner. So far as the meeting place is concerned, during part of the time we gave the dinner in our academy room, a caterer was employed who came in and gave us our dinner, and the scientific meeting followed the dinner. Our attendance at our meetings, held in that manner, has increased from 50 to 75 per cent. Following the dinner, which was absolutely informal, where there was joking and sociability going on, formality dropped away immediately; they were allowed to smoke cigars or cigarettes during and following the meal, and you would be surprised how hard it is to say mean words about the fellow sitting next to you, and how much higher he will stand in your esteem when you do get together in that informal way. And then following that we have tried to have an address by some layman on topics of general interest, not associated with medicine at all. That seems to set the meeting off in pretty good shape. This, of course, was followed by the scientific meeting.

After the scientific meeting no one seems to be in a hurry to get out of the room. Then once a year there has been an annual meeting at which the doctors' wives are invited, and it pays to hold that meeting; you get in trouble if you don't. We tried last year, to hold this meeting without bringing the wives, and I don't know that I was ever in so much hot water in my life. The women felt slighted at once and thought we were trying to slip something over on them; so hereafter, at the annual meeting, the women will be invited. Then once during the year, preferably in the summer time, a meeting has been held out of the city; and eventually, if we are going to carry on the social activities of the Society to the extent which we should, I believe some arrangement is going to be made to entertain them at every meeting—not necessarily at the meeting itself, but especially for the wives of doctors from out of the city. I think some provision should be made so that they may meet the wives of the doctors in town, and that some provision may be made for their entertainment. That is done in some localities, and where it is you would be surprised how much easier it is to get the doctors out to the medical meetings, because the wives are looking forward to those meetings and insist upon coming. (Applause.)

Dr. Warnshuis: I am going to ask Dr. Foster of Bay City to tell us about "Scientific Teams," which their Society has been sending out.

Dr. Foster: Mr. Chairman, and Fellow Members: Dr. Warnshuis reminded me that I was to say something regarding the subject he mentioned, "Scientific Teams." This has been developed in the Bay County Society on rather a small scale. Reciprocal meetings have been held at Alpena. Alpena is a short distance north of us and last year was the first time we carried out this idea. We sent a delegation to Alpena; the meeting was held at a lake and it was a most enjoyable affair. Our program consisted of three papers. In October they gave us a return engagement and put on a most interesting program. There were four speakers from Alpena that came down. Now an engagement is being planned for May 20 this year and we expect a large delegation from as many of the Societies as can arrange to take a day off, and then they are coming back again in the fall. We hope to develop it further, especially with the smaller County Societies. The idea as worked out is more or less of an experimental character. The smaller Societies feel that they are a little more isolated, especially those up north; it is harder to get men to go there than for those nearer the larger cities.

Just one thing more that does not happen to bear on this subject. Dr. Moore spoke about having the co-operation of the public. I just wonder if someone can tell me how you can get the co-operation of a hard-boiled newspaper editor. We have an editor at Bay City on one of the papers, which is one of the Booth papers, who is absolutely hard-boiled. He is easy for everybody they say—although I don't believe it—but the medical profession. He says we don't advertise. The chiropractors do, they put in a full page. All we get is "Dr. Jones of Grand Rapids attended a meeting; tomorrow he goes home." Recently we raised our night rates in Bay City; we went up from $3 until we had them up to $7; the idea was to cut out unnecessary calls at night, and it gave rise to one of the most masterful cases of rhetorical work that I have ever read. It certainly was a masterpiece and it wound up by telling the people to be sick in the daytime if they had to deal with the medical trust. I wish somebody could tell me how to get at that editor. (Applause.)

Dr. Warnshuis: "Public Health Information and Education." Dr. Curry, of the Genesee County Medical Society of Flint, will tell us about this. Dr. Curry.

Dr. Curry: Mr. Chairman and Fellow Members: Public health information and education has always been a much mixed up problem. I think the Extension Department of the University of Michigan recognized that also, otherwise they would not have sent out Dr. Sinai along in November of last year to investigate the situation and consult with each County Society with reference to the plan of acquainting the public with reference to subjects relating to scientific men. I had a conference with Dr. Sinai at that time, and I presume the other Secretaries have also talked with him, and it was decided that we would take up the problem through the schools and the industrial plants in our cities. Dr. Cramp brought up the subject of the inquisitiveness of the high school student when he referred to the 120 letters of inquiry regarding patent medicine by high school students. If they can be interested to that extent with regard to patent medicines, why can't we educate them with regard to something more reliable. So consequently in about half an hour we secured five members of our Society who were willing to devote some of their time to speak at the high school. It was then decided it would be before selected groups. For example, the freshman high school student is a little too young, I believe, to teach these subjects to. So we decided we would begin at the eleventh grade, the last two years, when they reach the age of about 15, 16, and sometimes 17. We chose five men; One who could talk on biology, one who knows a lot about diet, one who can talk on exercise, one who is able to discuss the time-worn subject of health habits, one on first aid. Each one of these men were chosen and are limited to their

particular line of work. It was decided to start out in January and continue it on through the balance of the school year over a period of approximately five months. Five speakers would appear each four times, making twenty appearances over a period of about five months, or about once a week. This will, of course, be increased next year when the school year will be about nine or ten months, but it will be on the average of once a week. It was first suggested by Dr. Sinai as an experiment, but it was not an experiment after the first appearance. I talked with the first speaker after he had addressed the high school, and it happened to be Dr. Himmelberger. He chose as his subject those organisms which are producers of disease, and I might say that the class in biology at the high school was the class which was first selected, so that they would particularly be interested in those subjects. He said it was astonishing to look around and see the eager expressions of these high school students as he told them about the various germs that produced disease in a practical way, in a way that would appeal to them, using as few scientific terms as possible. They covered the subject of exercise, diet, habits as to health, and first aid. It has been working for two months and is working better each time. There is the same reception each time. It just refers back to the old saying that the time to inject something into the mind of an individual is when it is pliable and active, and that is while they are in the high school. It was suggested to work at it with the industrial plants. That has always been a problem in Flint; it was tried before and was unsuccessful. About the only time that it can be done is during the noon hour, and if any one of you have driven by the industrial plants during the noon hour you have seen a heterogenous mass of about 20,000 people scurrying to and fro as they are pouring out of the big Buick and Chevrolet plants, and they are not particularly interested in listening to anyone talking on the matter of health. They are more concerned about playing cards, sleeping, or smoking. However, in order to decide whether the proposition would be successful, we have chosen two speakers, who are good speakers, and we are going to try out two selected groups in the factory, and Dr. Sinai is going to be present and circulate through the groups of men to get their impression on the various subjects. (Applause.)

Dr. Warnshuis: "Publicity, Plans and Methods in Michigan". Dr. Jackson, who is chairman of our council, will tell you something about the plans and work developed along this line. Dr. Jackson. (Applause).

Dr. Jackson: I might emulate the example of our worthy Secretary and tell a story, perhaps to break up the monotony of the occasion. I remember that a good many years ago I was going down to an X-ray meeting at Detroit, and I met up with Dr. Hickey, whom X-ray men are likely to call "Pop Hickey". There was a paper on the program which had to do with X-ray diagnosis of acute intestinal obstruction. Dr. Hickey says, "I want to hear that paper, that is a good paper, it always has been a good paper;" and I can say that much for Mr. Smith's story. (Laughter). I would like to tell another one that I heard Dr. Fishbein tell at Detroit a few months ago, which I think is about of the same vintage. He told a story about someone who was going through a big industrial plant, and they showed him about all the big things they had and all the different processes they went through. When they got through the man was very much impressed; he said, "about how many men work here?" "Well," the foreman scratched his head and he said, "I should say about half of them." I think that is a good deal the way with men who are interested in medical organizaztions, and the biggest share of that half of them that do the work are the County Secretaries. It is hard for us to get other members of the County Society interested in the purely organization work. I am much interested in this question of publicity, and was very much interested in what Dr. Curry told you was going on at Flint. This program they have undertaken to try out, if it works in Flint it will work in other cities. I agree with Dr. Curry that the high school age is the psychological time to put over the facts about the truths of medicine. The Secretary invited me to come down and read a paper and said my time would be limited to a half an hour, and I have taken the liberty of writing out what I have to say and I think I can get it in within half or three quarters of an hour—there are five typewritten pages.

From the earliest days the practice of the healing art has been considered to have about it something of the occult and mysterious. To the medicine man has often been attributed supernatural powers. The physical and the metaphysical have often been closely associated when they had to do with the healing of bodily disease. So long as the doctor assumed to cure disease by supernatural methods it was natural that he should shrink from publicity and be content to allow his clientelle to indulge in whatever fancies and beliefs they might hold concerning his mysterious methods.

But times have changed. The public press and universal educational privileges for the masses have brought about an era of enlightenment. Today the schoolboy can tell you the intricacies of the radio. Men know about scientific achievements in all other fields. It is only natural that they should demand enlightenment as to the revelations of science in the field of medicine. Men have seen the conquest of disease as medical science has solved one after another the problems in its field. They have seen small pox, typhoid fever, malaria, yellow fever, diphtheria, bubonic plague, typhus fever, and many other of the great destroying plagues conquered one by one. They have seen the era of modern surgery develop with its great salvage of human life. It is natural and right that they should be interested in these things and that they should demand the truth about medical practice.

Let us consider briefly some of the ways in which the public is being educated in these matters at present.

The public schools are teaching our children the basic facts of physiology, biology, anatomy and the principles of bacteriology. Colleges more and more are emphasizing physical education and with it a knowledge of the human body. President Little, of the University, has recently proposed a plan for training women students in the essentials of the knowledge necessary for the care of the sick. His plan would make such work as require-

ment for the graduation of women from the university.

The whole modern tuberculosis crusade has been built up on a campaign of education. Everywhere the public has been told about tuberculosis. No one can doubt that the great advance which has been made in the control of this disease is due in large part to this campaign of education.

Great magazines are printing month after month articles telling the people about the achievements of modern medicine. Almost every city newspaper has today a column devoted to the discussion of matters of public and individual health.

Public health officials issue bulletins from time to time which tell the laity in their own language about public sanitation and inviting their co-operation.

Recently some of the great life insurance companies have been serving as a means of telling the public about matters of health and disease. The Metropolitan Life Insurance Company has recently been carrying full page advertisements in some of our great magazines. These advertisements tell their readers the means of preserving health and prolonging life. Presumably the insurance companies get their returns in the prolongation of the lives of their policy holders.

Recently large manufacturers of drugs and toilet articles have been approached by large advertising corporations asking them to publish ethical educational articles for purely mercinary reasons. To emphasize the correct care of the teeth and its relation to the general health is to increase the demand for tooth paste and tooth brushes. Recently the writer has had some correspondence with a representative of a large advertising corporation concerning this very plan. At the Mt. Clemens meeting of the State Society in 1924, representatives of the Curtis Publishing Company appeared before the House of Delegates asking our endorsement of this type of advertising. This endorsement was given.

I have mentioned a few of the many ways by which the public is gaining knowledge of medical matters. These methods are for the most part commendable. We may not approve of everything but I think we must agree that taken as a whole, these methods are doing much to establish the position of scientific medicine. It is certainly the plain duty of the medical profession to encourage and direct this movement. The physician has been reared and trained to avoid publicity for his individual efforts. Our code of ethics provides that we shall be judged by our deeds and not by our words. We have long felt that the doctor who advertised his ability to cure disease is the one who is least able to do it. Advertising and quackery have always gone hand in hand. For this reason it is difficult for the ordinary physician to bring himself to have anything to do with a program of publicity.

Publicity is, however, the one means by which to overcome quackery and fallacious systems of headline which are based on something else than truth. If there is any element of truth in the various systems of the healing art not within the realm of the practice of medicine, let us have the matter laid before the tribunal of an educated public opinion. Let the truth be sifted out from the bunk and the dishonesty and let the truth remain and the other meet the end which it deserves. I have felt for years that if we spent less time in legislature halls fighting legislation favorable to various irregular systems of healing and spent more time in telling the public the truth about medicine we should serve the public better.

I wish briefly to call your attention to some of the methods which organized medicine has already undertaken to play its part in the campaign of education.

To my mind the greatest single achievement is the publication of Hygeia. This magazine published by our American Medical Association brings each month to the lay reader a great amount of educational matter printed in readable language and available to all. It would seem to be the duty of every County Society to make use of every possible means to increase the circulation of this magazine and to encourage the reading of it by the public. Every member of the County Society should have this magazine in his office.

The Indiana State Medical Society has for several years now conducted a press service sending out each week newspaper releases to the newspapers of the state. These articles deal with current medical matters. They are sent out under the sanction of the Indiana Medical Society. The press of the state quite generally publishes these articles.

In our own state, as you know, the Joint Committee on Public Health Education has carried on for some time a plan of University Extension lectures on medical subjects. Just now this committee is considering the practicability of adding some sort of press service to its work. I should like to ask that each County Society should interest itself in the work of the Joint Committee and avail itself of every opportunity to assist in this work.

In Wisconsin for several years one issue of the Wisconsin Medical Journal has been a lay number and has been distributed to eight thousand people. The King's County Medical Society of Brooklyn has gone so far as to admit laymen as associate members.

These things show the trend of modern times in matters medical. Let me quote from a recent editorial in the Journal of the American Medical Association. "Traditionally the mystery that has surrounded the laboratory and the dissecting room has excluded the public. For centuries the public did not care. Now it does care. If it cannot understand the whole subject of medicine, it wishes to have explained clearly such parts as it can understand. It is one office of medicine to direct public opinion in matters of health along beneficient channels to sound conclusions. Apparently scientific medicine in a dignified way is accepting its opportunity."

Dr. Warnshuis: I would just like to ask the Secretaries who are present, and the other men that are here, how many of you do take "Hygeia". (The members raised their hands). All right, thank you.

As Dr. Jackson said, "Hygeia" I think, is our biggest missionary agent that we have at our command today for the education of the public, and we are endeavoring in Michigan to put across "Hygeia" into the offices not only of doctors, but also among the public. The next issue of The Journal will contain an editorial on that subject, together with a loose insert subscription blank, which we are asking not each Secretary, but each member of the Society to at least subscribe to "Hygeia" himself, and if possible secure the subscription of one or two more lay people to "Hygeia" this coming year. If each member would secure one subscriber it would increase the subscribers

to "Hygeia" in Michigan three thousand times, and we would have three thousand missionary agents working among the people educating them as to scientific medicine, and I wish each County Secretary at your next meeting would mention that subject. You now have had the subject of the minimum program and scientific program presented by different members.

Dr. Jackson: Dr. LeFevre has a matter to introduce at this time. May he have the time now?

Dr. Warnshuis: Yes. I was just going to say that we have had this subject presented by different Secretaries. I know some of you have had difficulty with this problem and right now I want you to come and set forth your difficulties, ask what questions you may want to, in order that this discussion may bring out something that will aid you in putting the program across in your own country.

Dr. LeFevre: Mr. President, Chairman, and Friends: We all know from experience how hard it is to get County Secretaries, County Society Presidents and so on to attend meetings. It has been a pull. I had experience with it myself in trying to get a crowd up here, and I am the only one that came.

We have in our midst a man who has devoted practically, I would say, a third of his time in the interests of medicine, not only in the State of Michigan, but as a national issue. He has done it faithfully and he has done it willingly, and was always on duty when called. The Council of the State Society, which represents every district in the state, at its meeting in January considered this person as a man that was deserving of some recognition. A committee was appointed by the Chair, Dr. Jackson, to carry this out. That committee was Doctor Bruce and myself. I am very sorry that Dr. Bruce is not present today, but on my own responsibility I enlisted Dr. Charters of Detroit to assist me in this. The Council voted unanimously to present a little token as a remembrance in recognition of the work done by our Secretary and Editor, Dr. Warnshuis. I have known Dr. Warnshuis very intimately for practically fifteen years. During all that time he has been Secretary of this Society. While we may have had some little differences at different times, I think after we got through we were more loyal to each other than we were before. I have watched his work carefully, and I do not believe that there is any society in the United States that can boast of a Secretary that is any better than the one we have. Our State Journal is a journal that surpasses any state journal. It has increased in value every year since he has been in office. Today I would say that it is a journal that a doctor cannot be without; he cannot afford to be without the journal in his office. Now we have a little token here, if you will stand up, Mr. Secretary-Editor, and we hope that you will honor it, cherish it, and keep it on your finger until death. (Great applause.)

Dr. Warnshuis: Mr. Chairman, and fellow Secretaries: I do not know what to say. I have been in situations before where I managed to get out, but just right now I don't know what to say. All I can say, fellows, is that I thank you, and if what I can do in the future will equal that done in the past, I will feel that I have done something for organized medicine in Michigan. (Great applause).

Dr. Warnshuis: I am going to turn the rest of this discussion over to Harvey Smith, and I want you and each of you to participate and tell the difficulties you have, and have the Council members who are here, and the other County Secretaries, tell you their experiences, and so have you go back with something tangible that you can put this program over in your own County Society. Right here I want to say, too, that ever since I have been connected with our state organization—that is when I graduated from the County Society work—one of the first men I met at one of these Secretary's meetings was Dr. Ward, of Owosso, Secretary of the Shiawassee County Medical Society. Dr. Ward is with us today. He probably has been Secretary longer than any of the rest of you, and I think we should be honored if Dr. Ward opened this discussion. (Applause).

Dr. Ward: Mr. Chairman: I did not come here to make a speech, and I was in hopes that I could listen all the time. However, I am willing to stand up and be shot at. I will acknowledge to having served for some time; this is my thirteenth year as Secretary of Shiawassee County. I tried to sidestep it a good many times, but never have been able to do it, nobody else wants it. So I have struggled along. There have been matters spoken of this afternoon that were very interesting to me. I suppose everywhere where there is a hospital there is a hospital staff and there is a Medical Society. The hospital staff have their offices; the Medical Society have their officers, and we have tried joint meetings, and in our little town we have a small hospital and a small nurses' lecture room, and when we have our joint meetings the room is not large enough, and we have been handicapped in that way. So we decided this year to pull away and have our Society meetings separate from the staff meetings. We are meeting in the city hall in an auditorium that is plenty large enough for all the people who liked to attend, and we have had in outsiders. At one meeting we had the clergy come in, and they were very much interested in a paper read to them on narcotics, and they showed their appreciation. The hospital staff really does not like the idea of our holding separate meetings; they want us to have joint meetings. I don't know myself what to do hardly. Our president this year is the oldest member in our County Society, and he and some of the other older members have been inclined to have separate meetings; so for the present we are meeting every alternate Tuesday, every second Tuesday. Our Society meets the first Tuesday and the staff meeting is the third Tuesday, so we have two separate meetings each month. We are getting along fairly well, and I don't know but it will work out all right. Perhaps some of you have the same problem. I noticed one of the doctors said they had joint meetings and that it worked very nicely. Somehow or other we did not hitch so very well; we did not know which was which, whether the dog wagged the tail or the tail wagged the dog. So we pulled out. I am very glad to have been here and to have heard Dr. Cramp's talk. I don't know but I am just as well satisfied, or better satisfied, than if Dr. West had been here. I was glad especially to hear his talk on the Bureau

of Investigation. I do not want to take up any more time, gentlemen. (Applause.)

Mr. Harvey Smith: We are ready for any general discussions, or detailed discussions, that may come along. I think everybody here has something to say in addition to what has been said; so don't be backward, just come forward and say what you have to say on this general section here, on the program. We haven't heard from Dr. McKean, although coming from the largest County Society in Michigan, and one of the largest County Societies in the United States, and we ought to have a word or two from him. (Applause).

Dr. McKean: Gentlemen: I haven't anything particularly to add. Irrespective of the difference in size between some of us, we all run into the same general type of difficulties in the work that we have before us. Of course, our meetings are more frequent; we have a meeting every week. However, as is the case with a lot of other societies, a large part of our programs are made up from out-of-town men. Probably 60 per cent of our meetings are addressed by men from one part of the country or the other; in fact, we find we have to do this in order to get a great many to come. We have the same difficulty with regard to conflict with our hospital staff meetings, and we have in addition to that—I think probably we are alone in that—the conflict with our various district societies. We have the Highland Park Society, we have the West Side and the East Side, and two or three other component organizations that hold separate meetings, and each draw their quota. However, we have an attendance week in and week out of about 175 to 200 men at our meetings. While that is only about 12 or 14 per cent of our total membership, and on the face of it is a very poor showing, on the other hand it seems to be the best that we can do. Of course, we have lectures and various things that take up considerable time. At our annual program, in which we overflow our auditorium, we have an attendance of six or seven hundred, turning probably two or three hundred people away. Dr. Curry spoke on "Health Education." We have had a lot of experience with that, and particularly this year. More and more we endeavor to spread information of one sort and another among the different factories. We have had two striking experiences, one with the Edison plant, where a series of lectures were given once a week over a period of several weeks, at which time they gathered together in the auditorium of the Edison plant for the purpose of hearing this information, and they exhibited a very fine spirit of co-operation and responded in a way that was far above the expectations of the men giving the talks. On the other hand, another scheme was tried of addressing men while they were eating their lunch, and I think that plan can be dispensed with very well. Amid the guzzling of soup and the crashing of dishes, one has to speak almost at the top of his voice, and it is very unsatisfactory from the standpoint of the men who are trying to talk and those who may be expecting to get something out of it, because except perhaps the first two or three people who don't dare to make a noise, it is almost a loss of time and effort.

The question comes up as regards advertising. This is a matter I particularly like to bring up. Dr. Jackson talked along the same line. The El Paso County Medical Society in Texas just the other day sent up to me to be presented at our council meeting a sample of some of the ads they have been running in the El Paso Daily Gazette, or something of that kind, anyway their leading morning newspaper, in which they ran about a quarter page ad, I should say eight by ten at least, and probably larger, in which they discuss for a week one particular subject, as, for instance, the "Relation of the Physician to the Lay Public," and then they will discuss the various subjects. It says underneath it, "Donated or paid for by the El Paso County Medical Society." That is, it is a system of group advertising. They have sent it up to us with some samples of some of the last few weeks as a criterion of what they are putting before the public, for our impression, and also I imagine it has gone to many other societies for their particular group impression. I should at some time like to hear Dr. Jackson and some of the other men express their opinion upon this particular mode of advertising at our meetings. There is a very divided trend of opinion on the subject. I do not think there is anything particularly that comes up now. I have been at many of these meetings before, and I have always taken a great deal back with me. I thank you. (Applause.)

Mr. Harvey Smith: Who will answer Dr. Foster's question that he raised a little while ago along this line of publicity?

Dr. Jackson: I would not want to answer it, but I might have some things to say on the subject. The problem of using the press is a complicated one. I had the privilege,—I don't know as it was much of a privilege either, but the committee asked me to appear before the editors of the smaller dailies here in Grand Rapids a few weeks ago on this question of press service in the State of Michigan, something like the Indiana service, and the reaction I got was this, that newspaper men are primarily business-men; they are not philanthropists; they are in the business to make a living, not to educate the public. If they find educating the public makes their business pay better, they will educate the public, but primarily they are hard boiled, no question about it. The first thing they wanted to know was what the doctors are to get out of it. The second question was, were there any osteopaths on this joint committee. The third thing they wanted to know was, what did the Michigan doctors think about the Texas plan of advertising. They came right back at me with that. I believe that the way—I don't know whether I do or not, but I kind of think this is what I believe, that the way to put this thing over with the press is to create a public demand for such information. I believe that by our lectures, and by a newspaper here and there that is willing to do it, if we can create a demand for information about medical matters that there will come a time when the press will print this material because they find the people want it. I do not feel at the present time that the medical profession is under any obligation to spend their good money to educate the public. I think we ought to be willing to give them this information: I think we should tell them the facts about medical science, but I think we

ought to give it to them just as fast as they want it, and not pay out our own money or bribe them to take it. That is the way I feel at the present time; I may change my mind later.

Dr. McKean: I would say on that same score that the newspaper men in Detroit—we have to give them credit for it—have been decidedly co-operative, both during our cancer week and at the time of the Medical Congress in Detroit a few weeks ago. They gave us, I think, a total of some thirty or forty columns in those two weeks of dispatches, perfectly well run, and they were put under the censorship of medical men in Detroit, so there were no false statements, and no personal advertising came into the matter at all, but they did co-operate very well and gave us some excellent service.

Dr. Jackson: I think the larger the community, the more tendency there is to co-operate with the medical profession. Most of the newspapers in the large cities are cutting out to a great extent patent medicine advertising. I think the real rub comes in the smaller communities where the struggle for existence on the part of editors is greater. Am I right about that, Dr. Cramp?

Dr. Cramp: I believe the larger papers do give more space to things of that sort, provided the material is good copy; in other words, good copy from their point of view. I do not think they do it from any altruistic point of view; they do it because they realize they are getting information on a subject that they believe their readers want to know about. But as to the question of the financial end of it, if the material we give to the newspapers is of such a character that the publisher thinks the medical profession is trying to put something over of interest to the medical profession rather than of interest to the public, that publisher will turn it down. On the other hand, if he thinks you are giving him some stuff that is going to be eaten up by the readers, why, he will publish it. I think that is the general attitude of the publishers. There is a question always when it comes to carrying paid advertising on the part of the medical profession, the danger that the public itself may feel that if the medical profession carries an advertisement trying to tell the public what scientific medicine has to offer, the danger that there will be a feeling engendered that scientific medicine is being hurt by the cults; in other words, the public may say, "Well, evidently the chiropractors and osteopaths are cutting in on the doctors' business, because they have to advertise now telling us what they can do." I think that phase of the thing has to be taken into consideration, and the material that is submitted for publication has to be very carefully thought out so as to make it impossible for the public to get the feeling that the medical profession is trying to play the medical profession's game, which, of course, it is not. The only object that the medical profession has in giving the material to the public is to give the public the facts, but unless those facts are properly presented it is a double edged affair, and there may be a greater reaction than action.

Dr. Marsh: The way we handle our newspaper down in Jackson County, we have two or three clinics every year under the direction of the Medical Society. That is news, and the paper wants it. Then we have a publicity committee from the Society, it usually simmers down to the chairman, and he gives the paper, or sees that the editor gets the news. That is what they want in the paper, of course; and then sandwich in a little so-called propaganda, and the editor takes it and likes it. It is a personal question between the publicity chairman and the editor.

Dr. Ward: Not all newspaper men are hard-boiled. We are fortunate enough in Owosso to have a paper that is very liberal; you will remember, Mr. Smith, when we had a conference, there was a lot of space devoted to the conference, and we have a good man editing the paper who has given us very good service. I never yet have seen any statement that was not perfectly correct.

Dr. Shackelton: I just want to put in a word. They are not all as hard-boiled as we think they are. You would be surprised how an editorial office is flooded with releases of various institutions, including medical institutions, trying to get publicity. That was very well illustrated a short time ago when the Henry Ford Hospital first opened up. Every newspaper in the State of Michigan, as well as many outside of the state, was flooded weekly with a release portraying the advantages and benefits of the Henry Ford Hospital. The editor at home got the release and published it; the second he published with a question mark back in his mind on the advisability of publishing it; when the third came through he decided it was merely Ford Hospital propaganda and threw it in the waste basket. I have had a number of conversations with him regarding the Gorgas Memorial Hospital. He said, "I threw all those in the waste basket." Yesterday there was an article in the "Tribune" covering about five inches in black faced type relative to the value of a man past fifty having a physical examination before going out to play golf. It came along at an opportune time and it was published, and a thing like that will do good. It may be that we feel they are not very much interested in medical matters, but in getting a little better acquainted with them we find that is not true, but that they are looking for things of value to the public, and the only thing they want to protect themselves against is undue publicity for the Ford Hospital, or the University of Michigan Hospital, or some other institution that is trying to get free advertising.

Mr. Harvey Smith: Is there any other discussion on the Minimum Program, on the various subjects?

Dr. Curry: I would like to ask whether these meetings were successful at the Edison plant, and what time of day they were held.

Dr. McKean: I heard the man who gave talks comment on it. As I remember, it was during the noon hour and it was given in their own plant; they have an auditorium and it was given right there, I believe, at the luncheon hour. I might say in this connection that the chief surgeon for the Chevrolet is starting something that will be sponsored by the company, in which they hope to educate their employes on these questions. The president of the Chevrolet Company expects to be present at these meetings, and I shall be glad to report on the success of that meeting later.

A Member: That will be on the company's time, will it not?

Dr. Curry: Yes, that will be on the company's time.

Dr. Ricker: Have you closed the discussion on the Minimum Program? As I sat in my office last week I thought over some things that were to come up today and I jotted a few of them down, because I can't make a speech, but as Councillor in the district which I cover, I really feel that some congratulation should be extended for the work that is being done. I may be intruding upon the program, but our Secretary told me I had to say something when I came down here, and the Chairman hasn't asked me, so I am going to tell you what I think about this "Minimum Program" right now.

Mr. Chairman—Members of the Medical Profession:

I deem it a rare privilege to have the opportunity to speak with you as County Secretaries concerning the work of the Michigan State Medi-profession—jazzing up a little—and like terms—have been presented to the Council in the past two years. We have seen the handwriting on the wall. Strains of Bolshevism, and milder radicalism has shown upon the horizon at times only to be eclipsed by the untiring efforts of our County Secretaries who have responded to the call at all times. They have met Mr. Smith in almost all cases and helped in the most cordial way to save the day.

What has been the results of the work in Michigan (For I now am thinking of the District Conference). It has benefitted the general practitioner and in so doing the public. Better doctors make a better community, and the more we can give the ever clamoring public, the better standing we have with the profession. Take for example the matter of how to make an examination of a patient. I dare say this has stimulated many a physician to ask his patient to remove his coat and in a small percentage to strip to waist line, who never had time for such a thing before. It has stimulated more thorough examination. Second, it has stimulated an effort to make a positive diagnosis.

I think the recent war did more to stimulate this point in physicians, than anything in years past, but our post-graduate conferences are next. It has increased our surgical ability, and while laboratory benefits were lost art to many physicians, it has been brought to light in the last two years, and more laboratory work is being done. With all this has come a better feeling among physicians. Why? Because they must work together in order to give the best they have to the patient.

Again the social part—the coming together exchange of ideas, and the knowing of each other better—gives a greater dependency to your County Society, for the Secretary gets to know who can do things and who wants to do.

Again, as I pick up The Journal and look over the County Society news, I can almost feel the spirit of rivalry which each County Secretary has to bring his Society to a higher standard, and outdo the other fellow. I know you all as Sceretaries watch with eager interest for the report of your Society in The Journal to see how it compares with the other fellow across the state. Only a few years back we had to be satisfied with Ernie Highfield's report as he was among the faithful but today we have Ernest on the run and I hope it will keep up for The Journal is the Radio for our Medical Society, and if we wish to broadcast we must get our news in to the Secretary-Editor.

Our Journal is a live wire. Look at the co-operation, with the state Board of Health—University of Michigan—co-operation with other organizations —and last, but not least, the close affiliation with the great American Medical Association.

You only have to look over a few of the monthly bulletins of that organization to find Michigan far in the lead. Yet we owe a great deal to old Kentucky, and are just now reaping the benefits of that far-seeing and pioneer in the medical work —Dr. McCormick.

So let us push forward in our campaign for better physicians and better service to all Michigan.

I cannot prophesy for future programs, but I do know that if every Secretary who is here will carry out our minimum program for 1926 we need not fear any dark clouds to appear over the future of the Michigan State Medical Society. We will have, as I have said before, better physicians, better local Societies, better State Society with A.M.A. in the lamplight of all nations. With all this, healthier people and greater longevity, and happier community, state and nation in which to live.

Mr. Chairman: You today, from my colleagues I hope, gained some knowledge of what the examination of the well person means, and I hope you will profit by the reports given you. But the worst is yet to come. In other words, I am the member of this august body of medical men who is to tell you who should make these examinations. Of course, I know you are all men of sound mind, so I would not expect you to go to a Christian Science healer. I know a few of you would fight if I told you, you had no back-bone, or if I even insinuated you were crooked, so I would not expect you to go to a chiropractor, nor would I expect you to go to a carpenter, or brick mason just because they were specialists on joints. No, the man to make this examination is your family physician, if you have one. Of course, you all realize the good old family physician is almost obsolete with some, but he is the man who knows what time you get up in the morning, how much you eat for breakfast and how many times a week you eat at the McKinnion, how hard you work, how hard you play, how much you drink and smoke and what time you go to bed. Possibly he has opened your abdomen, looked over your liver, stomach, etc., has taken you through pneumonia and typhoid. In other words, he knows something about you, and if he is willing to give you some of his time, he can do you more good than the commercial organization who charge you $25.00. You go to a physician who examines you. He sends a report to this commercial organization, and they have a high salaried expert who writes if anything is wrong and just what to do for it and he never has seen you. This might work with certain models of automobiles because they are somewhat alike, but no two people are exactly alike. You say, well, I went up to Dr. So and So and he said there was nothing wrong. I go down to Grand Rapids, and I must have my tonsils out before tomorrow or I will die tomorrow. Your first physician knew you well enough to know your tonsils were not to blame for the little trouble you were having, and he did not wish to tell you to stop certain parts of your diet or your mode of living, because he knew you had been doing that all your life, and the trouble had come over a period of years. A very homely example, but some people enjoy running their cars without oil and get by very well, but when the car is taken to a garage they tell you you must have new rings or pistons, because you did not use oil. Well, there is Jones, he does not use oil, he has no trouble. Jones may smoke ten or fifteen cigars a day and have no trouble, but you can not do it, and you will not listen to any advice, but have your tonsils out because something is wrong with your heart, and your physician at home knows it is from your cigars, but does not wish to start something which he knows you will not carry out.

Now, let me give you a bit of advice. Go to the physician who knows you—tell him all you think he does not know. Have him check up on you, and go to his office and talk over such things as you may find will help you to live longer., (for we all want to live) give him the same confidence you would your auto repair man,—your jeweler who cares for your $110.00 watch—the carpenter who keeps your house in repair.

Remembering that physicians are an asset to the community, treat them as such and they will take a better interest in you, and you in them, and

jointly we will all be subjects for healthy persons examination, and we will have a better community in which we may live, and enjoy.

Do not forget the doctors are only a part of the community life, and they are here to live and help you to live—so be happy, for you have the best doctors in Northern Michigan—barring none.

Mr. Harvey Smith: Dr. Moore introduced a scheme up in his Society, along with Dr. Ricker, that I think would be fine for us all to have, but on account of time we will not ask him to tell the story as to how they organized this scheme of giving a demonstration of physical examination with the Exchange Club. We are going to ask him to write it and put it into The Journal so we can all have it for our own benefit when we see it in the next issue.

I am not sure whether we are closed on the Minimum Program. I will say that we are. I want to say as a last word that it has been a delight to meet the Secretaries and Officers and Counselors and see the emphasis and the enthusiasm manifested in trying to work out the Minimum Program in a form so that it fits local conditions, and I am certain that we are getting wonderful results. I know Societies are meeting three and four times as often as they did; I know they are having better scientific programs, and I know many are figuring and studying out what relationship they do have to the public. I think the State Society is to be complimented—that is not flattery either,—for having Secretaries who are trying to put the County Societies on the map, for after all the County Society without a program does not amount to anything, and the County Society unless it does carry on practically means that the State Society will be destroyed, and the State Society destroyed means that the A. M. A. can't exist. So that the County Society is the basis for constructive scientific medicine, and we have to assume that responsibility. The Minimum Program seems to be the one that is giving the ideal results thus far; it is not final, don't let anyone go away with the idea that it is final; it must be amended and fixed so that it fits as the years go by.

Now we want to close this conference in about twenty or twenty-five minutes. We have two divisions; one "The Post Graduate Conferences", and "The County Society" as the other on our program. The "Post Graduate Conferences" has these three headings: "How to Avoid Competition with County Society Activities. What Changes or Additions Would be Valuable? How May Attendance be Increased?"

I am going to ask for a free discussion. Somebody quickly say something on any one of these subjects right now.

Dr. Marsh: Due to a little correspondence I had about our Post-Graduate Conference, I would like to ask in the first place—I am ashamed to say I don't know—what comprises the 14th District.

Dr. Warnshuis: You will find it in the Advertising Section of The Journal.

Dr. Marsh: There has been among our County members a misunderstanding on that regarding whether Hillsdale was in it or whether we were not, or whether Washtenaw was in it or not. We knew Lenawee and Monroe were. That may have had something to do with the attendance, which was very small. That seems to be one of the misunderstandings we have in that corner of our state, as to just who to expect to be there.

Mr. Harvey Smith: The district is composed of Lenawee, Washtenaw, and Monroe at the present time. By the way, we invited Hillsdale. Is there any question on the Post-Graduate Conferences, as to how we can make them more useful, or is there anything else anyone has to suggest?

Dr. DeVries: May I ask as to who decides when to have them?

Mr. Harvey Smith: The Counselor and Secretaries, and then we have to try and fit it in for the time of meetings scheduled with other districts.

Dr. Jackson: What prompted that remark, Dr. DeVries? The Ingham County Medical Society decided to hold one; we were set for one in January. We communicated with the State Officers, and they asked us to hold off for a while.

Dr. Warnshuis: I will say Dr. DeVries was probably not responsible for that. It is quite a problem to ask men at the busy time of the year to go out, as sometimes two days are required in travel and in attendance on these conferences. We also recognize that there are some sections that need a little more crowding than others. Those that have a surplus of medical knowledge, we are letting them travel along on the knowledg they have, and are furnishing it to the others who haven't it.

Dr. Stone: I just want ot say to Dr. De Vries, you don't need to feel badly about that at all, as it so happens as Chairman of the Publication Committee I am also member of the Executive Committee. With our Executive Secretary we had a meeting of all the officers in my district way back in August or September, with a definite date set for a conference later in the year, and it happened one evening we were having an Executive Committee meeting in Grand Rapids with a conference scheduled for the week following, and when I asked what the program was to be,—"Why, Hell, you aren't going to have any conference next week." (Laughter.)

Dr. Warnshuis: This is a matter which the Council is very vitally interested in, and the County Society Committee of the Council, of which Dr. Corbus is Chairman, has given a lot of thought to the type of program

as well as to the number and time and place of meeting. We do not want to make them too common, so that it will be looked upon in a hap hazard way. We want to make it something outstanding in the medical program work in your district for the year. To that end we are directing our efforts in formulating a program that will prove satisfactory. I want to say that the Councilor of your district is first consulted in regard to the time and place of holding one of these post-graduate conferences. Then it is taken up with the Secretaries of the County Societies composing that district, the type of program is arranged and then the details for carrying it out are carried out by the officers and Mr. Smith of our office in sending out publicity notices. I think it is safe to say, Dr. Jackson, I thing you will agree, that we purpose this year holding post-graduate conferences in each Councilor District of the state before January 1st. We will get in touch with your Councilor and will get in touch with the Secretaries of the Societies composing these districts, and we will try and arrange a program that will meet the needs and wants of the men in your district; and in the meantime, as we are arranging the program, if you will give a little thought to it so that when we ask you for the information you will have it for us, we will try and put on the best possible program in your district.

Mr. Harvey Smith: I want to say we are always in need of definite suggestions from the Councilors and the County Society Secretary as to some outstanding thing they would like to have discussed on the Minimum Program. So we are always ready for suggestions. I may say Dr. DeVries, that your Councilor sent in a telegram this morning saying he could not be here, but that he wished the conference in Hillsdale in June, or down in that part of the state, at some country club.

The other fact outstanding relative to Ingham County is that the State Society will be there not very many months away.

I thing we can pass on from this Post-Graduate Conference, unless somebody has some contribution to make. If not, let us take a few more cracks at the County Society. What facts would aid in the formulation of activities? Who may secure them? How? How may hospital and County Society programs be supplemental to each other?

You are working out a year's program. What facts do you need? Do you need any, or do you just act? What have you to say on that point? Is there any discussion?

Dr. Warnshuis: I would like to ask the Secretaries present whether they feel it would aid them in their work if during these early spring months, and possibly the summer months as well as the fall months, if Mr. Smith would come and attend one of your meetings and spend a day or two days possibly in your locality or in your county, going over the work of organized medicine with your Society. Would you men feel that would be time well spent? Of course we are not referring to Wayne County, but would that be time well spent?

Mr. Harvey Smith: I might say along that line that I sent out about ten letters something like a month ago to Secretaries asking them to send in the announcement of their meeting, and if they had anything special in mind that I would make a special effort to get to their Society meeting. I must be in bad repute, because no one has asked me to come over. That is a problem we have had under consideration, to know when your Society meets and whether you want us to come down or not. If there are any problems the State Society can help you solve, we want to help solve them. Those are the things we are interested in. If I may say a word relative to this one part: What facts would aid in formulation of activities? Of course your Minimum Program, if you look that over carefully and study it thoroughly, you have to secure some facts, there is no question about that. But I feel, however, that very often many facts are going by the board in the community that we do not recognize—facts relative to other organizations especially; they are moving on; the public through its schools, and through the noonday luncheon clubs and other organizations are organizing themselves, trying to do something. Now then, along with that every once in a while comes the announcement that a County Nurse has been employed in the county, or a City Nurse is employed, and a number of other factors may come in. One organization after the other is doing something of interest to health; but they never, any of them, come to the County Medical Society. Why? What is the reason? Those are facts that we ought to keep in contact with and know what is going on in the community, so that we can meet those responsibilities. Some facts and questions are the basis of all activity friendship—friendship in its various phases. Is there such a thing as friendship in your Society, or is it just the opposite? Somebody said if we have to get somebody, we will have something doing. Possibly you do have something doing, but is it constructive? What kind of relationship exists be-

tween the County Medical Society and other organizations? What is the relationship between the Medical Society and the schools. What is the relation between the Medical Society and the Parent-Teachers Associations? So we may go on down the line. What relationship exists between the County Medical Society and State Board of Health or State Nurses' Association? Is it a matter of friendly attitude towards the development of constructive programs, or is it one of kicking the other organization as much as possible? All those facts should be considered in the development of programs for County Medical Societies.

Dr. Le Fevre: May I say just a word? I think one of the main features in carrying out the Minimum Program would be what we would call a "jacking up", and I think that would have to come from the State Secretary, from his office. For instance, you take the physical examination of the physicians themselves. How many have done it? I think it is time now that that should have been done, and I doubt very much if there are very many that have carried it out. And I think if Mr. Smith would drop a line to the Secretary every little while and have a report of how many doctors have been examined, and also about the other part of the Minimum Program, how much has been done, and that they would like to have a report upon it, in that way it will have to come up before the Society and keep the thing alive. I think unless that is done in a good many Societies the program will die a natural death.

Mr. Harvey Smith: I might say, Dr. LeFevre, that we did send out a circular and got a good deal of information on the Minimum Program, but under the head "Periodic Physical Examinations", we have not seen a great deal of activity, and that is one of the things that has led the Council and the Executive Committee in bring up this subject and furnishing these booklets on periodic physical examinations, for the good of the Society and to help them along with their program. Is there anything else? Dr. Randall has a matter to present.

Dr. Randall: Mr. Chairman: During the past year there have been two of the most wonderful conferences as an evidence of the respect or the standing of the organized medical profession. One of those conferences was the meeting of the State Board of Health, the State Board of Registration and Medicine, and the Council, and the Faculty of the University of Michigan. Dr. Darling was too modest to speak about these in his talk about the profession. It is a very significant thing that the entire faculty of the University of Michigan would meet together to discuss medical examinations and post-graduate work.

The other wonderful conference was the one held at Lansing in regard to the training in laboratory technique. Dr. Ricker mentioned the fact that the more men know about scientific medicine, the more they resort to the laboratory. There are certain things that cannot be taken care of intelligently unless you do have a good laboratory, such as anaemias, cases of uremia, sugar in the blood in certain diseases. In other words, in certain cases you have to depend upon your laboratory, and this condition not only exists in Michigan, but exists all over the United States. Dr. Warnshuis and Dr. Cramp have said that Michigan has been pioneer in several lines. Dr. Himmelberger, who is our pathologist at Flint, conceived this course from his own experience. He was originally a veterinarian; then he took up bacteriology and so on, and he has developed today into a good man, but he has had to go blundering along and has made many mistakes. Dr. Himmelberger talked with some of the men at Lansing, and finally a conference was held between President Butterfield and all the deans of the school, Dr. Davis of Detroit, Dr. Darling, Dr. Himmelberger, and myself. In that conference it was discussed what must be done. Lansing is eminently fitted to put on this course. Now the course that has been outlined cannot be put on by the University of Michigan. For instance, in Lansing they teach entomology, they teach bacteriology, they teach pathology, they teach zoology. Not only that, but Dr. Olin of the State Board of Health said that he has about thirty men in his laboratory. These men will be trained in practical work in this laboratory. After the conference Dr. Butterfield said he would put on this four-year course for high school graduates if the medical profession wanted that course, or if they would approve of that course, and I just wanted to get their approval or disapproval in order to get up a discussion, and I would move you, Mr. Chairman, that the Michigan State Medical Society, represented by the Council and by the County Secretaries, approve this course being given by the State College. Now there are two colleges in the United States that give this course, one at Philadelphia, and the other, I believe, at Boston. There is a preparatory school at Minneapolis that gives a very short course, three months. Dr. Davis, who is thoroughly acquainted with the situation, says that these graduates are absolutely no good. They have attempted to train nurses after their smattering of medical knowledge into laboratory workers. This course, if it is approved by you, will be put on by the State College, and it will be one of the other pioneer things that Michigan has done for better medicine. I make that as a motion, Mr. Chairman.

Dr. Curry: I support it.

Mr. Harvey Smith: Any discussion?

Dr. Jackson: I was invited to go to this conference at the time at Lansing, but I was not able to. It seems to me that all of us have had experience with the difficulty of getting trained laboratory workers for various communities, and it seems to me that anything which offers a solution of the problem, properly trained workers for hospitals, is worthy of our approval. I think they have the equipment, and I think they have the men to put this course on at the State College at Lansing, and I think if they are willing to do it, it ought to meet with our very hearty approval.

Mr. Harvey Smith: Are you ready for the question? All those in favor say aye. Contrary minded. The motion is carried.

Is there anything else. Has Dr. Warnshuis or Dr. Jackson a final word? If not, I think in behalf of the State Society we can thank everyone for coming great distances and small distances to help make the science of medicine more effective in the State of Michigan. I thank you one and all.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

PUBLICATION COMMITTEE
R. C. Stone, Chairman.....Battle Creek
A. J. Mac Kenzie.....Port Huron
J. D. Bruce.....Ann Arbor

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Grand Rapids, Michigan

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MAY, 1926

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

A COURSE IN MEDICAL BIOLOGY—AN ADVANCE STEP IN EDUCATION

The training of laboratory workers is a subject which has of late attracted a great deal of attention and comment. The course herewith outlined, has been conceived as a result of the observation that there appears to be a great need to attract to the field of Medical Biology, workers of the type usually interested in research and study; the type of individual who usually pursues training leading to one of the Post Graduate degrees, Doctor of Philosophy or Doctor of Science, and make their training and their services available for the hospitals and public health laboratories of the smaller communities.

The present method of obtaining laboratory workers of the type characterized in the term "Technician" is unsatisfactory, to say the least. There are few, if any, definite courses of study of this type offered by the higher public institutions of learning. True, several colleges offer courses in the fundamental sciences, but no effort is made to correlate these courses to medicine in the way of practical services. There are several private schools of laboratory technic, which occupy a position in the educational world similar to that occupied by the private medical school of years gone by, and several hospitals offer a laboratory course to nurses who have finished their nursing training. The fact that primitive efforts have been put forth by these different agencies to fill an evident demand appears to be sufficient proof for the need of the course herein suggested. Certainly a graduate of this course, holding a Bachelor's degree would be far superior to a person with a training of from three to six months.

Then there is the other more important field of the trained research worker, the trained bacteriologist and pathologist. It has been observed that the medical graduate does not long continue laboratory work as a vocation. He finds it an excellent stepping stone to medicine or surgery, both from the standpoint of training and income for the first one or two years after the completion of his medical course. This is more especially true in the smaller cities, at some distance from the centers of medical education. It has occured to some medical men, especially interested in educational matters, that the ideal situation insofar as the future development of a given hospital laboratory is concerned would be to have the director so trained as to include the necessary medical subjects in the ordinary medical corriculum, with the addition of more basic science subjects, not found in the medical curriculum, and having the graduate possess a degree commensurate with the training he has received, but one which would never permit him to entertain the idea of entering upon the practice of medicine.

The medical graduate has not been trained with a career as a laboratory worker in view. He entered upon his study of medicine with but one purpose in mind, that of becoming a doctor, a practitioner of medicine. His undergraduate training most certainly was not intended to fit him to be an investigator. Only those who are inspired by great teachers during the undergraduate medical course enter specialized fields like bacteriology, pathology, etc. Even then, they limit their ambitions to strictly teaching and investigational positions with the larger institutions of learning.

It has been said by one of the country's foremost professors of pathology that the present method of hospital standardization whereby hospitals are required to maintain laboratories, and being unable to secure a well trained personnel, are forced to conduct their laboratory with the aid of part-time

practitioners of medicine, has a tendency to do harm, because of the questionable character of work done. In short, the mere possession of an M. D. degree does not qualify one to direct the work of a clinical laboratory.

It has been maintained by some that the solution of the problem rests in post-graduate work for medical graduates. This would without doubt be the ideal situation, providing the man so trained would not recognize his superior training and become interested in the more lucrative field of medical practice. Furthermore, the number of medical graduates who would carry their training through two or three years of post-graduate study would be so woefully small as to make the idea impractical.

There can be no doubt that two or three years served in a well equipped active hospital laboratory is an excellent preparation for medicine or surgery for the recent medical graduate. On the other hand, no one can maintain that the laboratory and its development does not suffer by its use as such a preparatory school, with the resulting frequent change in personnel. Another evil frequently met is the part-time laboratory worker who devotes a part of his time as director of the hospital laboratory while "building up" a medical practice. One so engaged is certainly more concerned with the progress of his practice than with laboratory development. He surely can be of no more than passive benefit to the laboratory or hospital staff.

The training of men and women as herein outlined, it seems, would fill a gap that now exists between the field of practical medicine and biological science. The present tendency in medical education and hospital development is to make the local hospital a continuation school, so to speak, for the practitioner of medicine. If this is not the tendency at present, it most certainly will be in the not far distant future. The presence on the hospital staff, of an individual trained in the biological sciences of pathology, physiology, chemistry, bacteriology, etc., with a correlation of these sciences as they apply to medicine, and who by his training and the degrees he possesses, is committed to a work free from the ever present temptations of a lucrative medical or surgical practice, would certainly tend to make of the laboratory, a nucleus around which the educational activities of the community would center. The course of study outlined would attract those minds interested in biology as a strict science, the investigational type of mind, which would not be interested in the practice of medicine.

The graduate of this course who pursued his studies to a doctorate, would be the connecting factor between the practice of medicine and the biological sciences. He would give to each community of 15,000 or more people, a trained research worker, competent in those sciences with which medicine as an art is so closely interwoven. From a financial standpoint, he would enjoy an income that would compare favorably with his colleagues of the teaching profession. It appears that this type of training offers a solution to the problem of supplying the smaller communities at some distance from centers of medical education trained people—with "shoe makers who will stick to their last."

Conscious of the pressing need for such a course of training, several conferences were held by representatives of our State Medical Society and the President and faculty members of our Michigan State College at Lansing. As a result we are pleased to announce that such a college course is now arranged and students may so matriculate this fall. The following is the outline:

A COLLEGE COURSE IN MEDICAL BIOLOGY

Michigan State College will offer a full college course for the training of technical laboratory experts—bacteriologists, serologists, chemists, pathologists. The course will be available for students with the opening of college in September, 1926. The course leads to the Bachelor's degree, followed by the Doctors degree after a successful, practical experience in hospital, clinic or public health laboratory.

The course prepares men and women for positions as laboratorians in hospitals, physicians' and surgeons' clinics and federal, state and municipal health laboratories. It also fits the specially adapted student for either commercial or research laboratory work requiring a technical knowledge of medical biology in its broadest sense.

The course is designed, furthermore, to give the student a liberal education since non-medical studies are included and may be elected to a considerable extent. A liberal education should certainly teach one about himself and the interesting species to which he belongs. This course does that to a superlative degree.

Entrance requirements are the equivalent of a good high school education. The prospective college student contemplating such a group of studies is advised to consult with his or her family physician or with some other forward looking medical man. From such persons advice may be obtained that will be of material assistance in making a decision. Graduates of this course may so

arrange electives that entrance into class A medical colleges is possible. *But, this course is designed to train men and women to use scientific laboratory methods to assist the medical profession in the diagnosis and treatment of disease, and not to prepare them for the practice of medicine.*

Students will have all the advantages of the well equipped laboratories and the instruction by the faculty of the college and also the opportunities offered by the very exceptional laboratories and highly trained staff of the Michigan Department of Health and the large hospitals and sanitoria of Lansing. The work will be given in an atmosphere that is sympathetic with the undertaking.

Correspondence relative to this course and opportunities for graduates may be addressed to the chairman of the faculty committee having in charge the administration of the course.

Ward Giltner,
Professor of Bacteriology and Hygiene,
Michigan State College,
East Lansing, Michigan.

* * * *

FOUR YEAR COURSE IN MEDICAL BIOLOGY

FRESHMAN YEAR

Fall Term	Credits
Mammalian Anatomy 6	4
Embryology and Histology 5a	3
Chemistry, Inorganic 1	4
English, Composition 8j	4
	15
*Military Science 1	2
Physical Education 1	1

Winter Term	Credits
Physiology 5	4
Embryology and Histology 5b	3
Chemistry, Qualitative 2	4
English, Composition 8k	4
	15
Military Science 2	2
Physical Education 2	1

Spring Term	Credits
Physiology 6	4
Embryology and Histology 5c	3
Chemistry, organic	4
English, composition 8 l	4
	15
Military Science 3	2
Physical Education 3	1

*Required of men only.

PREMEDICAL OPTIONS—Students who may wish to undertake this course but who may also have in mind preparation for a medical college may make substitutions to meet the entrance requirements of Class A medical colleges. This course is not designated especially for prospective medical students.

SOPHOMORE YEAR

Fall Term	Credits
†Chemistry, organic 3	4
Bacteriology, general 1	4
Bacteriology, parasitology 6	2
‡Elective (Entomology 11, 4a)	6
	16
*Military Science 4	2
Physical Education 4	1

Winter Term	Credits
Chemistry, quantitative 7	4
Bacteriology, laboratory 2	4
Bacteriology, protozoa 7	2
Pathology, general 1	6
	16
Military Science	2
Physical Education	1

Spring Term	Credits
Chemistry, Biological 29	4
Bacteriology, Physiology 3	4
Bacteriology, helminths 8	2
Bacteriology, Sanitary Science 14	2
Elective (Pharmacy 1)	5
	16
Military Science 6	2
Physical Education 6	1

‡The student should work off the prerequisite to medical entomology 15.

*Required of men only.

†The student not wishing, for adequate reasons, to take this and the following courses in the series in chemistry may elect chemistry (Physiological) 21 and 17c in Fall and Winter terms respectively and elect other subjects to complete the schedule.

JUNIOR YEAR

Fall Term	Credits
Bacteriology, antiseptics 4a	4
Pathology, infectious dis. 2a	4
Chemistry, biological 29a	4
*Zoology, general 7	4
	16

Winter Term	Credits
Bacteriology, Pathogenic 4f	4
Bacteriology, industrial hygiene 24	2
Chemistry, Biological 29c	4
*Zoology, heredity and eugenics 13	4

Spring Term	Credits
Bacteriology, immunity 4j	6
Pathology, Infectious dis. 2b	3
Pathology, meat inspection 3	3
*Zoology, genetics 18	16

*This Zoology series is highly recommended but may be replaced by some other series or courses.

The student should work off the prerequisite to medical entomology 15 if he has not already done so in the Sophomore year.

SENIOR YEAR

Fall Term	Credits
Bacteriology, Public Health 4k	4
Entomology, medical 15	3
Elective and required work in State Laboratories and hospitals. (3)	10
	17

Winter Term	Credits
Elective (Math. statistics 8 or 4a)	
Elective and required work in State Laboratories and hospitals. (3)	17
	17

Spring Term	Credits
Bacteriology, digestive tube 4L	2
Elective and required work in State Laboratories and hospitals. (3)	15
	17

(3) The student will be required to take the lectures in child hygiene and public health nursing, Sanitary engineering, Epidemiology and vital statistics (total 4 credits); public health laboratory work in Bacteriology, pathology, serology and chemistry 12 credits; hospital practice (4 credits). (A credit involves 3 hours of effort).

Electives may be taken with a view to perfecting a technic in laboratory practice, to develope a better preparation for sanitary inspection work, or in a diverse field of technical education, science or liberal arts.

The program will be arranged so that the students will spend half the day in Lansing in the Laboratories of the Michigan Department of Health or in one of the several hospitals and Sanitoria and the other half at the college.

Post-Graduate work leading to the master's and the Doctor's degrees will be available to graduates in this course.

This is a progressive, timely, educational measure. One that will be instituted by other states and colleges. We take pride in being able to make announcement that Michigan is in the van guard. We also urge that our members recommend this course to prospective students and also announce it at hospital staff meetings.

MINUTES OF A SPECIAL MEETING OF THE COUNCIL

A special meeting of the Council of the Michigan State Medical Society was held in the Rowe Hotel on March 30, 1926, and was called to order by the Chairman, J. B. Jackson. The following Councilors were present:

Doctors Jackson, Charters, Van Leuven, Ricker, Randall, LeFevre, Powers, Corbus, Stone, Secretary-Editor F. C. Warnshuis, and President C. G. Darling.

On motion of Councilor Ricker, supported by Councilor Van Leuven, it was directed that the Medical Legal Committee's funds be transferred to the general fund of the Society and that disbursements therefrom be made by voucher signed by the Chairman of the Committee, Chairman of the Council and the Secretary. Carried.

It was moved by Councilor Corbus, supported by Councilor Stone, that the Council felt that it was to the best interest of the Society and the Medical Legal Committee's activities that the names of no members of the Medical Legal Committee be lent to any insurance corporation in endorsement of their business or methods of handling claims.

It was moved by Councilor Powers, supported by Councilor LeFevre that the Council go on record of tendering a vote of confidence and appreciation to the Chairman of the Medical Legal Committee, Doctor F. B. Tibbals, for the splendid manner in which he has conducted the business and affairs of the Medical Legal Committee and that we hereby record an expression of appreciation for the time, thought and effort Dr. Tibbals has devoted to this work. Carried.

On motion of Councilor Stone, supported by Councilor Bandall, the Secretary was directed to extend to the American Medical Association a cordial invitation to hold its 1927 meeting in Detroit, and to endorse the invitation that was being extended by the Wayne County Medical Society. Carried.

There was no further business and the Council adjourned a 6:00 p. m.

MANUAL OF PHYSICAL EXAMINATIONS

If our members will turn to the report of the County Secretaries Conference contained in this issue he will find a discussion on Periodic Physical Examination. The public is demanding in increasing numbers physical examination. They are being induced to submit to these examinations by several agencies. The examination to be of value must be thorough and complete. Having been made the findings must be evaluated and suitable advice imparted. This is the examining doctor's responsibility.

To aid our members the Council has purchased a sufficient number of the "Manual on Physical Examination," prepared and published by the Amercian Medical Association, for presentation to each member. They will be distributed by the Secretary of your County Society. Each County Society will devote one meeting to discuss Periodic Physical Examinations and it is purposed to pass out the manual at that meeting.

County Secretaries are requested to advise us of the date when such meeting is to be held and the manuals will be forwarded to him.

This plan of activity is one of the features of our years program. It is calculated to aid

each member to be abreast of the times. It is an educational movement that is nation-wide. We therefore urge that you secure a copy of this manual and profit by reason of it.

EXPRESSION OF APPRECIATION

It has been our privilege to serve our Society for a goodly number of years. That service has been one in which the objective has ever been to aid our members and to advance the interests of our Society in its several activities. What was entailed in that service has been set forth from year to year in our annual reports to the Council.

There have been times when our service appeared mighty small. At other times the effort expended appeared to be unavailing. Discouragement, yes, at times we experienced it. However, we kept on and as we look back we perceive that our Society has progressed, not because of our efforts, but rather, because of the efforts expended by our Officers, Councilors and County Units, whom we have been privileged to aid. We are appreciative of having been permitted to have so served. If we have achieved we are content because of having contributed our mite to that of those who have labored.

During the January meeting of the Council we were called out of one of the sessions and kept out for a period of time. The reason therefore was never known to us until March 30th, when, during the Secretaries' Conference, a diamond ring was presented to us as a gift purchased by the individual contributions of the members of the Council and tendered by them as an expression of the Council's appreciation for the years of our service as Secretary-Editor. Coming as it did and from individual Councilors who best knew of our service, it was a surprise as well as a touching expression of confidence that deeply impressed us. One can only say, "thank you." However, a deeper, indescribable inner record has been implanted that will carry on within us through the years to come.

TRI-COUNTY MEDICAL SOCIETY EXCHANGE CLUB MEETING

I have been requested by the Secretary of the State Society, to give a report of a recent meeting our Society held with the local Cadillac Exchange Club. Our subject for a program was "Periodical Health Examinations." To start at the beginning, we had a noon-day luncheon at the Hotel McKinnon, in advance of course, at which time a detailed program was arranged, by each doctor taking some specific phase of the subject. This was followed later by a Sunday forenoon rehearsal, where suggestions and changes were made to fit the occasion, and also to avoid any over-lapping or repeating, when the program was given. Also the time for each one was to be around five minutes, and same was to be in the nature of an oration, not read from manuscript.

It was the opinion of all present that this should be followed by another rehearsal the evening before the noon-day luncheon, which was done and I think, was really the secret of the success of the effort.

Dr G. D. Miller being chairman of the Program Committee of the Exchange Club for that month, was thereby Chairman of our meeting and in this capacity made a few appriopriate remarks in the opening and closing of our program. Your humble servant (Dr. Moore) then introduced the subject. Emphasizing the remarkable achievements of preventive medicine in the United States in the increase of duration of life which has been brought about chiefly through the control of infectious diseases in childhood and early adult life. Also through the medical and dental inspection of schools and the work of the school nurse and their co-operative lay organizations. All the above however, does not touch or influence the adult individual in his active or working period of life, nor does it prolong the same. Hence the human machine is wearing out at the same old rate. But the Periodical Health Examination by finding the pre-symptoms was the only weapon which has been developed to increase the life expectancy of the adult. Then I gave the history of the Periodical Health Examination. Closing with a eulogy on the mule, who never eats too much, or never drinks too much (even when warm and thirsty), quits when the whistle blows, and refuses to inbreed, thus leaving the club in good humor for the program to follow.

Dr. Smith opened the program proper with the blanks in the hands of each member, showing how necessary it was to answer any and all the questions and how one depended on the other and that when completed was really a picture of the individual.

Dr. Carrow followed with the relation of health to business. Emphasizing the yearly inventory and checking up the business man did in order to know where he stood in a business way. While as a matter of business it was more necessary to check up on himself.

Dr. Gruber then took up heart and kidneys as his part of the program and in a very plain but definite talk showed how insidious were their primary defects, but how simple to detect with the appliances we have at

hand and with so favorable results when taken in time.

Dr. Ricker next took up the Commercializing of the subject by Companies, Etc. Showing very clearly that the one to make the examination was the family doctor, the one who knew and had a personal interest in the individual.

Dr. Wardell, the Shakespeare of the Medical Society, and the youngest member (in spirit), was given the task to make up for what the rest of us failed in doing, and gave an eloquent oration on diet and posture and closed with a poem on "My Mule," that was a scream.

The program was put over on schedule, very snappy and with no repeating or overlapping. If we have suggested anything that will be of help to other Societies in bringing this most important subject before the people our efforts will not have been in vain.

Yours for the Profession,
S. C. Moore, Secretary,
Tri-County Med. Society.

Editorial Comments

Section officers are engaged in formulating the program for our Lansing meeting. Members desiring to read papers should write to Section Secretaries for place. Their names and addresses may be found under the list of officers in the front section of The Journal.

We have just returned from the Dallas Meeting of the A.M.A. as the Journal goes to press. It is impossible to impart in this issue, the outstanding features of that meeting. Extended comment will appear in our next issue. Dr. Jabez Jackson, of Kansas City, was elected President-Elect.

This issue contains the stenographer's notes of the County Secretaries Conference. We urge every member to read this report. It is especially urged that you give thought to the addresses of President Darling and Chairman Jackson. There is much for thought, yes and action too, in these observations. A discussion at your next county meeting would not be amiss.

Mencken, modern wielder of a pen that is replete with truism, in the course of an editorial, makes the following comment:

"Thus one observes, in all fields, a series of attempts at evasion—or, perhaps, more accurately, of simplification. The moron, unable to comprehend what is set before him, seeks surcease from the struggle that is easier. Biology is inordinately complicated and confusing; Genesis is beautifully simple and plain; ergo, Genesis is true and biology comes from hell. Again, modern pathology is complex and full of snares—and chiropractic is so clear and neat that even an ice wagon driver can take it in; ergo, it is superior to the science of Virchow, and the ice wagon driver is superior as a scientist."

Can we educate these morons?

We presume you received your spring supply of "blowers" all monogramed in the form of handkerchiefs mailed to you from an eastern business(?) house. You also noted the letter asking for $1.00 for the six and stamps to return if not wanted. If you remitted the dollar you paid a big price for cheap material as well as confirming that you are an easy mark. We kept our, stamps and all (in storage). Now we are awaiting to see how they are going to collect. The plan of salesmanship is first an imposition and second it entails cheap material for what appears to be bargain prices but which are not bargains. We've got a supply of neckties that are "in storage" also. We wish some similar firm would start sending autos under the same plan. What your experience has been with these mail outfits is desired.

The State Department of Health has issued a laboratory manual. It was written by the Director of the State Laboratories, C. C. Young, M. D., and composes a part of the university requirement for the Degree of Doctor of Public Health. The dissertation is a five year report on the department laboratories. It is descriptive of the technical and administrative procedures. As such it at once becomes a valued manual and aid to all laboratory workers, hospitals and medical men. It imparts details in clear terms and demonstrates basic reasons as to why our state laboratory is so efficient, scientific and dependable. We congratulate the director on this excellent presentation and recommend that those engaged in similar work avail themselves of this opportunity of obtaining information, instruction and assistance that will be of value to them.

Our relationship with the public entails a dual role—that of education as to what scientific medicine can positively achieve and the personal service we render. Our profession has progressed with extreme rapidity during the past twenty years—so rapidly that we have far outdistanced the public which has but meager knowledge of our positively proven facts. The people as a whole are unaware of these facts. Did they but know, and know understandingly, the service that awaits them from reputable doctors would extend life twenty to thirty years. It is regrettable that by reason of the propaganda of cultists and so-called Christian Scientists, lives are daily sacrificed, cripples made, and pain and suffering fostered—many, if not all of which might be eliminated if the representation of these benighted and misguided proponents were fully exposed by the truths and facts of scientific medicine. They pursue their nefarious ways and falsely prey upon the ignorance and gullibility of human beings, gathering in the shekels under a guise of pseudo science. Because of which, our duty to our fellowman is one of enlightenment and education.

The inordinate waste of money for flowers for the sick room is an extravagance to which hospitals may well give consideration. We are not opposed to the adornment of a sick room with flowers and we recognize the cheer they convey. Our contention is rather the abuse of the practice. Recently one patient received over a hundred dollars worth of flowers in one day. Every hospital man has witnessed time and again five to twenty dollars worth of flowers at the bedside of a ward patient who is being cared for on a free bed. Patients paying their hospital expenses with difficulty frequently receive fifteen to thirty dollars worth of flowers during their hosiptal residence. "Say it with flowers" is the florist's sales slogan, but how much better it would be for the average patient if a penned note of cheer and good wishes were sent to these patients and then enclose the money that

would have been spent for flowers to aid them substantially as they so often stand in need of assistance. Despite the cry of the florists, hospitals might well provide sufficient flowers and prohibit sending of others—some such restriction is called for.

The chiropractors have a "College" Its members have the distinguished right to attach the four mystic letters—capitals all—F.A.C.C. to their names. Won't it look fine?—B. B. Manipulator, D.C., F.A.C.C.

The item from a New Haven paper which carries the news states that the latest "college" is "chartered under an act of the congress and is analagous to the Royal College of Surgeons of England and the American College of Surgeons in this country." It does not say what congress enacted the act referred to, but it does state that "of 35,000 chiropractors, fellowships are limited to 2,000 membership on two continents." When one fairly untangles that statement he arrives at the conclusion that this newest born "college" means to be somewhat exclusive. A pronouncement is made in the newspaper statement as follows: "The degree (!) of F.A.C.C. is the highest honor and most coveted degree (!!) in the chiropractic profession and demands a training and competency far beyond that required of the ordinary organization. This fellowship carries with it a well defined code of ethics and each fellow inspires the other to abide by this code." (The exclamation points and the italics are ours.) The chances are that that "code of ethics"is going to be "carried" a far distance into strange places.

We will now await, with calm confidence, announcements of a "college" of naturopaths, a "college" of mechanotherapists, a "college" of naprapaths, and a "college" of chiropodists. And when it comes to deciding on the winner from the standpoint of euphony, we will vote for the last named.

Fellow American College of Chiropody!!!—Bulletin A. M. A.

The professional man conducts the most hazardous business of all. He is never "safe." He is at all times wide open to attack by that "bandit" or "highjacker"—the so-called "blackmailer"—who preys upon the professional man through that unpopular individual, the "needy attorney." That this condition exists—that it is vicious—that it is far reaching in its effects—that it is growing worse, cannot be successfully disputed. There are, of course, several contributing factors. However, the most outstanding cause, as being the most dangerous and effective, is furnished from within the profession itself. We refer to that professional man—and there are unfortunately too many such—who deliberately, or otherwise, practices the tearing down of a fellow practitioner's reputation by discrediting his ability, with the sole purpose in mind of thus advertising his own particular superior qualifications.

Through this method of "self-advertising" is planted in the mind of a patient, who never before had a thought occur in that direction, the germ of an idea to "get some easy money" which leads him to the aforesaid "needy attorney" and—the mischief is done—the claim or suit follows and the usual undesirable notoriety following newspaper publicity results. This in turn educates the public to the detriment of the profession at large. Thus becomes the "self-advertising" professional man—as "accessory before the fact"—one of the primary causes of the great increase in so-called "blackmail" malpractice claims and suits. This condition not only breeds malpractice cases but—is also responsible in creating claims and suits alleging damages sustained by reason of slander, undue familiarity, assault, breach of contract, creating drug addicts, return of fees, etc.,—all of which come under the category of professional liability.

Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

Editor of The Journal:

An united effort is being made to furnish for the County Medical Societies, talks on prenatal care and maternal welfare under the auspices of a Joint Committee, organized for this purpose with a State Chairman and a corps of speakers of ability in each state.

The Chairman for Michigan is Dr. George Van Amber Brown, 13300 Woodward Ave., Detroit, Mich., who will appreciate your co-operation in announcing the work so that when requests come from the County Secretaries, he can arrange to furnish the program. It is hoped to have two such meetings a year in each County Society.

Thanking you in advance for your interest in the educational program.

Very cordially yours,
Geo. Clark Mosher.

Editor of The Journal:

Upon reconsideration of the matter of an invitation to the American Medical Association from the Wayne County Medical Society, it was decided to extend the invitation for 1928 instead of 1927.

We sincerely appreciate your services in the matter thus far and trust that we shall have your co-operation in 1928.

Fraternally,
H. A. Luce, M. D., President.

Editor of The Journal:

I am just home from an extended European trip and find yours of November 2nd which must have reached my office about ten days after I left home last October. This explains my long delay in answering it.

It was certainly very kind of you to write me.

Our doctors take great pleasure in doing all they can to promote scientific medical progress and I assure you we are ready to co-operate with you and others who are devoted to promoting scientific medicine in every way possible.

I will place your letter before our Board.

I remain, dear doctor

Sincerely yours,
John Harvey Kellogg.

State News Notes

Dr. Eugene S. Browning, urologist, sails for Europe Saturday, April 24, for four months post-graduate study in London, Paris and Vienna.

Our Society Business and Activities

HARVEY GEORGE SMITH
EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

POST-GRADUATE CONFERENCES

Plans are under way for conducting three Post-Graduate Conferences during the month of May and early June. The first conference, for the 13th District, will be at Alpena, on May 6th, the second for the 11th District, at Fremont, which will include doctors from Muskegon on the west to Big Rapids and beyond on the east and as far north as Manistee. At least seventy-five are expected to attend this day of study. The third conference will be at Jackson, the city located in the center of the fourth District, which includes Ingham, Hillsdale and Jackson counties. Not less than one hundred doctors will be in attendance when this Conference convenes on May 25th.

Due to bad roads and weather conditions in addition to much sickness and a near epidemic of old-fashioned flu, Conferences have been delayed. The belief has been held that it would be unfair to sick people to urge doctors to attend meetings and leave suffering patients until such time as the doctors could return from Conferences and again it it is unfair to request doctors to attend special conferences for an entire day when cases of pneumonia, and flu demand their best efforts. To come to a Conference feeling it a duty to be back in the community where patients are calling for assistance produces an unsatisfactory attitude and atmosphere in which to advance Scientific Medicine. Both the patient and the doctor would suffer under such circumstances and neither would receive the benefits of Scientific Medicine.

Now that road conditions are improving, less illness of acute nature is developing, the members of County Medical Societies should be planning their time and intent so that conferences that are specially planned for their respective County Medical Societies and their District may be attended.

The State Medical Society, the Councilor and the Chairman of the Post-Graduate Conferences are attempting to bring to each Conference speakers who will give the last word in proven facts in Scientific Medicine and at the same time bring useful, practical information for every practitioner. Speakers are giving from one to two days, traveling across the state in order to meet with their fellowmen in the interest of only one thing and that is to help advance Scientific Medicine throughout the state, to assist their fellow practitioners. They desire to serve. They can be assured that they are serving well by being met by doctors who also are giving time and have the desire to advance Scientific Medicine. Such an assurance can be measured in but one manner —attendance. When the Conference for your District is announced Doctor ———, lend a hand. Be there!

PHYSICAL EXAMINATIONS

The advance guard of the County Medical Societies of the State, determined by definite interest and activity in physical examinations, is composed of the following Societies:

The St. Clair County Medical Society, Washtenaw County Medical Society, Alpena County Medical Society, Lenawee County Medical Society, Muskegon County Medical Society, Jackson County Medical Society, Houghton County Medical Society, Tri-County Medical Society.

These Societies have already arranged for or conducted a special program on physical examinations. The Secretaries have written for and secured from the State Office the Manual on Physical Examinations, printed by the American Medical Association, and distributed to the membership of the State Society through the County Society at no extra cost. The membership of the organizations are making appointments with their fellow practitioners for a complete physical examination. As a group they are placing scientific medicine at the command of the apparently well.

The Tri County Medical Society has taken a unique step in giving information to laymen. With the Exchange Club an entire program was planned on scientific periodic physical examinations. The Medical Society organized a team of five members, each was assigned his part and then after holding several rehearsals the program was presented. The test of the plan is a statement like this: "Our own doctors gave us one of

the most interesting programs of the whole year."

At Tecumseh the Secretary of the Lenawee County Medical Society dropped in to see the President of the Association of Commerce—"Wouldn't you like to have the County Medical Society secure a speaker for one of your banquets?" said he, "You couldn't make a better proposition, we need a speaker for April 27 and you have the job," was the reply. The Secretary hardly believed what had happened as he walked out of the office, but reflecting he concluded, business men are interested in scientific medicine. They must want maximum health. A speaker has been secured who will present to the business men and their sons a discussion on "Scientific Medicine and Its Intelligent Use for Health."

County Medical Societies and members in furthering a program of physical examinations for themselves and for the apparently well are taking the most advance step in Scientific Medicine. They stand at the cross-ways of physical life of the human family, and may direct the members to more health attainment, more joy and happiness, more accomplishment in personal, community, state and national affairs. They may turn on the red or green light and give intelligent understanding and direction to all, or they may stand by and let the human family pass, some well filled with the vigor of youth, some young but plodding, some wrecked at middle age, some hoping for life through pseudo health givers, and some hoping under the fallacies and superstitions of past ages.

Deaths

Dr. Norman S. Campbell, Bark River, Michigan, died at St. Francis Hospital, Escanaba, Michigan, February 23, 1926, from septicemia, following burns sustained December 26, 1925, when his home was destroyed by fire during the night. The family barely escaped from the burning building. Dr. Campbell was born July 11, 1879, in Thorenburg, Ont. After graduating from high school in Ontario at the age of sixteen, he attended Toronto University for three years, his fourth year, in the Detroit College of Medicine and Surgery. He served one year in Children's Hospital as Interne, practiced one year at Milbrook, Michigan; eighteen years at Germfask, Michigan, and came to Bark River, Michigan, in 1922.

At the time of his death, he was President of the Delta County Medical Society.

Dr. Robert Bennie died at his home in Sault Ste. Marie, March 20, 1926, aged 64. Dr. Bennie was a graduate of McGill University, 1891, and for many years was one of the leading physicians in this part of the state. He served both as President and Secretary of the Chippewa County Society on different occasions, and was once President of the Upper Peninsula Medical Society.

Dr. Bennie was very active in his profession and was keenly interested in everything for its better ment.

In his death both the County and State Societies have lost one of their most prominent and valuable members.

Berten M. Davey of Lansing, died on April 10, after an illness of six days, from lobar pneumonia. Dr. Davey was a graduate of the Detroit College of Medicine in 1905, chief of staff of the St. Lawrence Hospital, Fellow of the College of Surgeons, member



Berton M. Davey

of the staff of Sparrow Hospital and grand knight of the Knights of Columbus.

In his passing the community of Lansing loses an esteemed citizen and professional man. Our State Society sustains a serious loss for Dr. Davey was ever active in our interests. By reason of his acquaintences he was active in medical legislation and as chairman of our Legislative Committee his work in the legislature was influential.

County Society News

ST. CLAIR COUNTY

The regular meeting of the St. Clair County Medical Society was held at the Hotel Harrington, Port Huron, Michigan, April 1, 1926. Meeting was called to order at 7:40 p. m., Dr. R. K. Wheeler acting as chairman in absence of both the president and vice-president. Seventeen members were in attendance. Shortly after the meeting began the vice-president, Dr. W. W. Ryerson, assumed the chair. The minutes of the meetings of March 4 and 18 were read and approved. The auditing committee made their report for the two previous years and the report with

recommendations was adopted. Financial statement of the Secretary-Treasurer as of March 31, 1926, was read and placed on file.

Dr. A. L. Callery addressed the Society on the subject of a clinic for crippled children, soon to be held under the auspices of the Rotary Club of Port Huron, and made a plea for co-operation on the part of the Society to the end that the parents of the children be re-assured. He then moved, seconded by Dr. Douglas Treadgold, that the Society publicly endorse the crippled children's clinic and that as many members as could do so attend the same. The motion was carried and the Secretary instructed to write the Rotary Club informing them of the action taken.

The Secretary-Treasurer made a report to the Society relative to the Secretaries Conference held at Grand Rapids on March 30, 1926. A rising vote of thanks was given the Secretary-Treasurer by the Society upon completion of his report and same was adopted.

The Secretary-Treasurer was instructed to obtain a sufficient number of manuals of physical examination of the apparently healthy to allow each member of the Society to have one.

Dr. A. J. MacKenzie read a very interesting and original paper upon "Infections of the Gall Bladder." The subject was discussed by Doctors B. E. Brush, McColl, Waters and Haight. Dr. MacKenzie closed his talk in the usual manner. Meeting adjourned at 10:12 p. m.

Regular meeting of the St. Clair County Medical Society was held at the Hotel Harrington, Port Huto order by President J. J. Moffett at 7:30 p. m. ron, Michigan, April 15, 1926. The meeting was called There were twenty-three members in attendance. The usual order of business was dispensed with and the speaker of the evening, Dr. William H. Marshall of Flint, was introduced by the President.

The address of Dr. Marshall was practical and thoroughly enjoyed by the members present. It is impossible in this report to do justice to Dr. Marshall. The subject was "Periodic Physical Examinations of the Apparently Healthy," and was intended to introduce and supplement the manual, on the subject, prepared by the American Medical Association. The speaker covered the subject in a practical manner and following will be found a few of the more important facts and factors so well brought out by Dr. Marshall.

The speaker was of the opinion that the ordinary physician could do this work just as well and perhaps better than clinical groups. In fact, the physician making the entire examination had an advantage over the clinical group, unless the data obtained by such group was correlated by one individual, the composite picture presented by the subject would be lost. In his own practice, the speaker said, he made all periodic examinations by appointment and did not allow them to interfere with his office work in caring for the sick. He would ask them, at their first call, to fill out History Form A as completely as they could and later present themselves for examination by appointment. Dr. Marshall seemed of the opinion that if the examination was taken up in a systematic way, that the required time would not be excessive. In his own practice he found a great deal of information could be adduced in a comparatively short time. The speaker emphasized certain dangers in making the periodic examination. "Members of the profession intending to do these examinations should study physiology and hygiene, should study the neurophysiology of both heart and kidneys and, if possible, forget pathology, remembering that they are now dealing with living bodies, not dead ones. Another factor of danger toward the whole movement is careless examinations and conclusions; these will act as a boomerang, throwing the entire plan of periodic examinations into disrepute with the public. Then there is always a danger of turning up certain cases where an exact diagnosis within a short time is impossible. Even in clinical groups and at large hospitals these cases occur and are apt to cause some embarrassment. Another danger is a misunderstanding, on the part of the examiner, of certain facts contained in the history given by the patient, the danger of placing too much importance upon one fact and not sufficient upon another, as well as the danger of exaggeration of certain symptoms by the patient. Then, again, there is the danger of the examiner 'seeing too much,' of exaggerating things he does find, of placing too much importance upon minor defects or conditions, in other words, a 'myoptic vision' is to be avoided by the examiner. Another and most important danger is that of making the patient neurotic. Many anxiety neuroses are caused in this manner. The physician must guard against the implantation of fear in his patient."

In his discussion of Physical Examination Form B in the manual, Dr. Marshall placed some emphasis upon rectal examinations. These should always be made. Many facts are brought to light by a careful rectal palpation. The whole question of blood pressure, either high or low, should be treated in a liberal manner. Little is positively known about hypertension and the significance of moderate hypertension is not fully evaluated in all cases in a correct manner. Only sustained hypertension, treating the subject as if a basal metabolism test was about to be made, should be given serious consideration. High diastolic pressure is more significant than high systolic pressure, according to Dr. Marshall.

Congenital visceroptosis should not give rise to a serious prognosis. Oftimes individuals in apparent robust health show, upon examination, malposition of the colon or gastroptosis. We are apt to think, said the speaker, of the colon as it is often pictured in textbooks and charts, as lying evenly, an inverted U. Subjects with the colon in the form of an M have perfect function. Abdominal supports do not correct congenital types of visceroptosis. Movable kidney, as a rule, should not cause serious apprehension. In every routine physical examination certain reflexes such as biceps, triceps, pupillary, Romberg and patellar, should always be tested. Sensation can be tested easily by a little cotton upon a toothpick. A urinalysis should invariably be done and if needed, or indicated by the chemical findings, a microscopic examination of sediment may be made. A Wassermann should be taken. The speaker scored heavily the practice on the part of many physicians who treat late syphilis without clinical manifestations by arsphenamine medication. This is a dangerous procedure, according to Dr. Marshall. In some cases death may occur where there is cardiovascular pathology present in this type of case. Certainly active clinical syphilis calls for treatment, but unless this is true, we should proceed with caution. Finally there should be a summary of findings and the conditions found grouped together to make a complete picture. Evaluation of symptoms is very important. Some are to be taken seriously and others treated lightly in forming a conclusion in a given case. It is not the lack of knowledge on the part of a physician which causes him to overlook abnormal conditions, it is often only due to the fact that the examiner has failed to examine. Dr. Marshall emphasized light, good strong light as being a most important physical requisite in making an examination.

Following Dr. Marshall's paper, discussion by the following members of the Society took place: Doctors Reynolds, Burley, Smith, Bowden, Waters, Callery,

Heavenrich, and Moffett. Dr. Marshall closed in the usual manner.

A motion was made, seconded and carried that each member of the Society be given a physical examination before the next meeting and that a report of the same be made at that meeting. The Society adjourned at 9:10 p. m.

G. M. Kesl, Secy.-Treas.

GENESEE COUNTY

I am enclosing a list of the scientific meetings held by our Society from November 25th, 1925, up to the present time, for publication in the May issue of The Journal.

Genesee County Medical Society met for noon luncheon at Hotel Dresden, November 25th, 1925. Dr. P. Morse, Pathologist, Harper Hospital, Detroit, Mich., spoke on "Spenomegaly."

Genesee County Medical Society met for noon luncheon at Hotel Dresden, January 6th, 1926. Dr. Clinton, Harper Hospital, Detroit, Mich., spoke on "Enterostomy and Its Indications."

Genesee County County Medical Society met for noon luncheon at Hotel Dresden, January 20th, 1926. Dr. Green, Owosso, Mich., spoke on "Hypothyroidism."

Genesee County Medical Society met for noon luncheon at Hotel Dresden, February 3rd, 1926. Dr. Ward Seeley, Receiving Hospital, Detroit, Mich., spoke on :"Vomiting of Pregnancy."

Genesee County Medical Society met for noon luncheon at Hotel Dresden, February 17th, 1926. Dr. N. Mortensen, Battle Creek Sanatorium, Battle Cheek, Mich., spoke on "Primary Anemias."

Genesee County Medical Society met for noon luncheon at Hotel Dresden, March 3rd, 1926. Dr. Allen, Surgical Staff, Harper Hospital, Detroit, Mich., spoke on "Thoracic Surgery."

Genesee County Medical Society met for noon luncheon at Hotel Dresden, March 17th, 1926. Dr. Plass, Obstetrician, Ford Hospital, Detroit, Mich., spoke on "Simplified Obstetrics."

Genesee County Medical Society met for noon luncheon at Hotel Dresden, March 31st, 1926. Dr. Edward C. Davidson, Department of Surgery, Ford Hospital, Detroit, Mich., spoke on "The Treatment of Burns."

The Tri-City (Bay City, Saginaw and Flint) Medical meeting held at Bancroft Hotel, Saginaw, Mich., 7:00 p. m., April 7th, 1926, with about one hundred physicians in attendance. Dr. Channing Barrett, Professor of Gynecology, University of Illinois Medical Department, spoke on "Treatment of Prolapsed Pelvic Organs," with special reference of history of operation of "perineorrophy."

Genesee County Medical Society met for noon luncheon at Hotel Dresden, April 14th, 1926. Dr. E. Russell, Department of Pediatrics, Battle Creek Sanatorium, Battle Creek, Mich., spoke on "The Effect of Ultra-Violet Light on Undernourished Infants and Children."

WAYNE COUNTY

On March 23rd Dr. Phillip H. Kreuscher, of Chicago, delivered a most instructive talk on "Backache" before a large number of the Society members.

March 30th marked a departure from the customary scientific program with a card and dancing party for the members and their ladies given under the auspices of the Entertainment Committee.

The following week Dr. Martin H. Fischer, of Fischer's Solution fame spoke on "The Constitution of Living Matter and Its Relation to Some Medical Problems" in a most illuminating and convincing manner.

At this meeting a resolution was adopted authorizing the Board of Trustees of the Society to begin negotiations for the purchase of a new club house.

The meeting of April 13th, held under the auspices of the Medical Section, was divided into two parts, the first being "A Brief Story of Disease" by Dr. J. H. Dempster and the second, "Evolution of Anatomy" by Dr. Wm. J. Stapleton, Jr.

This meeting was also the occasion for the presentation of a portrait of Laennec to the Society by Dr. Stapleton.

The last meeting of the Detroit Tuberculosis Research Society was held jointly with the Industrial Surgeons of the city on April 14th. A discussion of the problem of the rehabilitation and replacing at work of apparently arrested cases of tuberculosis was taken up.

The Detroit branch of the American Urological Society held its last meeting April 1st at the Detroit Athletic Club. The scientific program was rendered by Dr. Alvin Thompson of Flint, Mich. on "Recent Advances in the Treatment of Gonorrheal Rheumatism" and by Dr. W. R. Chynoweth of Battle Creek, Mich., on the "Relationship of Gastro-Intestinal to Renal Infections."

Dr. Robert L. Schaefer addressed the East Side Physicians Association on "Endocrinology" at the last meeting of that organization April 1st.

Dr. C. W. Waggoner, of Toledo, Ohio, spoke on "Activities Encroaching Upon the Private Practices of Physicians," at the last regular monthly meeting of the Highland Park Physicians Club. held April 1st.

KENT COUNTY

A RESOLUTION PASSED BY THE KENT COUNTY MEDICAL SOCIETY AT ITS REGULAR MEETING APRIL 14, 1926

WHEREAS, The Kent County Medical Society whole-heartedly accepts the principle that its members are ready and willing to serve freely and without compensation in all Free Clinics which restrict their services to patients worthy of free medical attendance, and

WHEREAS, This Society is directly opposed to the policy of Free Clinics adopting a graduated fee system for patients who are able to pay, and to the engagement of physicians' clinical services at nominal sums, and

WHEREAS, This society has been requested to make an immediate ruling upon the acceptance of

appointments to the medical staffs of Free Clinics adopting such policies,

BE IT FURTHER RESOLVED, That this Society requests its members to at once sever their connection with any Free Clinic which routinely and persistently renders free medical attendance to persons financially able to pay.

FURTHER, That members of this Society decline to accept appointments to the medical staff of any Free Clinic adopting the policy of a graduated fee system for patients and employment of physicians' services for a nominal sum.

FURTHER, That this Society, through its Permanent Committee for Investigating Free Clinics, continue to confer with the Welfare Union until a complete understanding be reached on the subject involving the acceptance of these principles.

FURTHER, That the Permanent Committee for Investigating Free Clinics be empowered to investigate and determine from which clinics the members of the Kent County Medical Society shall sever their connections.

FURTHER, That failure of any member to comply with this resolution shall be sufficient cause for this Society to prefer charges against that member in accordance with Section 10 of the By-Laws dealing with "Misconduct."

AND FURTHER, That a copy of this Resolution be sent to each member of the Kent County Medical Society.

ALPENA COUNTY

The regular meeting of the Alpena County Medical Society was held March 18th at the Louise Hood Tea Rooms on Chisholm street. The following physicians responded to roll call: Doctors Bell, Cameron, Foley, Burkholder, O'Donnell, McDaniels, Bertram, Secrist and Williams.

After a splendid dinner as the guests of Doctors Leo Secrist and William Arscott, of Rogers, the scientific program was carried out. Dr. Harry J. Burkholder presented two cases of policythemia which had been carefully worked up. These cases had a red cell count of 8,000,000 and 9,500,000 respectively and a haemoglobin of plus 1.35. The literature was reviewed of some hundred cases that had been reported. Phenolphydrocisn was being exhibited in these two cases. Weekly blood counts had shown a reduction of some 2,000,000 red blood cells.

Dr. E. L. Foley gave an interesting paper on the needed improvements in the local hospital. He also presented a method for obtaining these improvements. A vigorous discussion of ways and means was entered into by all.

An invitation was received from the local clergy to be their guests at dinner at the next regular meeting of the Medical Society. This invitation was reciprocating from a recent entertainment and dinner tendered the clergy by the Medical Society. Program for the April meeting will be a paper by Dr. William Newton on "The History of the Specialty of Opthalmology" and a paper by Dr. C. M. Williams on "Light Therapy."

C. M. Williams, Secretary.

IONIA-MONTCALM COUNTY

The March meeting was held at Hotel Belding, Thursday evening, March 11th.

Dinner was served at 7 o'clock.

The minutes of the two previous meetings were read and approved.

Communications of Dr. Nelson, Howard City, was read.

Dr. A. B. Smith, Grand Rapids, gave a very practical paper on "Malposition of the Uterus." He demonstrated that as good or better results could be obtained by local medical treatment than by surgery in many of these cases.

Dr. B. R. Corbus, Grand Rapids, gave a very interesting talk on "Hypertonus and Arteriosclerosis." His talk proved that while there is no cure for this condition, yet much may be done for the patient by advice and guidance.

Both papers were well received and freely discussed.

A motion was made by Dr. G. A. Stanton that a copy of Dr. Smith's paper be sent to The Journal of the Michigan Medical Society for publication.

H. M. Maynard, Secretary.

LENAWEE COUNTY

The regular monthly meeting of the Lenawee County Medical Society was held at the residence of Dr. C. H. Westgate at Morenci, on Thursday, March 25, 1926.

The meeting was called to order by the President and after old and new busines was disposed of the members present listened to a very instructive talk by Dr. Howard H. Cummings, of Ann Arbor, on "Some Complications of Obstetrics." His talk in outline included the following topics: "Occiput Posterior Positions, Diagnosis and Treatment," "Indications for Caesarean Section," "Eclapsia," "Hyperemisis Gravidarum" and "Postpartum Hemorrhage."

Dr. Cummings emphasized the importance of giving the patient rest and watchful waiting in the posterior positions.

After completing his talk Dr. Cummings answered and discussed numerous questions advanced by his listeners. All members present agreed that this meeting had been the most practical of any held in some time, and we wish to thank Dr. Cummings through the medium of The Journal for coming so many miles to give us his message.

After adjournment an excellent musical program was given by Mr. and Mrs. Even Breyen and Miss Lea Bess Chappell, followed by a plate supper served by Mrs. Westgate.

The next meeting will be held April 22, 1926, at the residence of Dr. W. S. McKenzie, in Adrian.

R. G. B. Marsh, Secretary.

CALHOUN COUNTY

The Calhoun County Medical Society held its regular monthly meeting, Tuesday, April 6th at 8 p. m. at the Post Tavern, following dinner in the Rose Room.

After reading of the minutes and approval of the bills, the Secretary gave a lengthy report of the Conference of County Secretaries, which was held at Grand Rapids, March 30th. Following the report a motion was carried that the president appoint a committee to arrange for the holding of public health lectures, etc., and the appointment of a scientific team.

The County was particularly fortunate in having Dr. Robert Prebble, of Chicago, give a practical talk on "Pneumococcus Pneumonia." His many years of experience and unusual ability as a teacher gave much that was of value to the local profession.

Attendance at the dinner, 22; at the meeting 60.

Dr. L. E. Verity, Secretary.

HOUGHTON COUNTY

The Houghton County Medical Society held its regular monthly medical meeting Tuesday, April 6th, at the Miscowaubik Club, Calumet, Michigan. After the reading of the minutes and allowing of bills, the matter of the minimum program was taken up. It was moved by Dr. Bourland, seconded by Dr. Kirton, that it would not be feasible for the Houghton County Medical Society to adopt the minimum program.

The letter from the State Medical Society relative to the matter of a special meeting for physical examinations of the apparently healthy was read. It was moved that the Secretary request manuals of the American Medical Association on physical examinations from the State Secretary for every member, and that a meeting be arranged for this program.

The matter of running a series of advertisements in the local papers was reconsidered and on motion of Dr. Ellis seconded by Dr. Manthei, it was recommended that the matter be dropped.

It was moved that the Secretary write the Marquette-Alger County Medical Society a letter of sympathy at the loss of its Secretary, Dr. H. J. Hornbogan.

The following committee was appointed to draw up resolutions over the unexpected death of Dr. H. N. T. Nichols: Doctors Bourland, Rupprecht and Kirton. Dr. Gregg was appointed to secure flowers for the Society.

The first papeer was read by Dr. F. E. Coster on "Scarlet Fever." Dr. Coster took up the serum-therapy in full. He gave a very interesting and concise description of the technic and results obtained. The paper was fully discussed by Doctors Bourland, Abrams, Manthei and Gregg.

Dr. Bourland next read a paper on the "Clinical Value of the Electro-Cardiograph." Dr. Bourland gave a very interesting description of the electro-cardiograph and the technic and use of same, and presented a chart of the different records and explanation of same. This paper was fully discussed by those present.

The Society then adjourned to lunch.

G. C. Stewart, Secretary.

INGHAM COUNTY

Ingham County activities for January, February and March:

January 8th—Dr. M. A. Mortensen, of Battle Creek, talked on "Arterial Hypertension and Some of Its Complications." Attendance 40.

February 12th—Dr. Philip Kreuscher, of Chicago, gave an illustrated talk on "Backache." Attendance 60.

February 19th—We had a social meeting at which Dr. W. E. McNamara gave a well illustrated talk on "Big Game Hunting in Michigan and in the Canadian Rockies." The program was followed by a buffet luncheon of reindeer sandwiches and coffee. Attendance 100 .

March 12th—Dr. Norman Allen, of Detroit, read a paper on "Diverticulitis." Attendance 45.

March 23rd—This was a luncheon at the Hotel Downey for the purpose of stimulating good fellowship among the members and getting into the spirit for entertaining the State Meeting in September. Mr. J. W. Haarar, a prominent Lansing banker, gave us a talk on "Doctor's Investments." Tardy members were fined or requested to sing a solo. Some sang. Some paid. We collected enough on fines to pay for the speaker's luncheon.

Thus far we have had a very successful year and we are already planning things for the State Meeting to be held in Lansing in September.

C. F. DeVries, Secretary.

OAKLAND COUNTY

Following the outline of the Minimum Program which has been adopted by the Oakland County Medical Society, a special program on public health education and information was planned for the March meeting.

Dr. Nathan Sinai, the speaker from the Extension Department of the University, stated that a program of educational nature, in which the organization should take the public into its confidence is the new and effective idea of modern practice.

"Public health educational work should have started 50 years ago," Dr. Sinai told his medical friends. "Medics were rather backward about going ahead with publicity and educational work of this nature, but recent years have brought marked changes. The change has been brought about by the anti-scientists. If the adult mind can be educated in wrong thinking, it can also be educated in right thinking."

Praise was extended the newspapers for their interest in scientific discoveries, the use of health columns, and other constructive publicity. Dr. Sinai mentioned the value of radio in education work of this nature.

"The public will and does believe what it hears, if it comes from persons in authority."

Definite steps were taken by the Society to put into operation a plan of health education. The Secretary was directed with the Health Committee to secure speakers from the membership to assist the Extension Department of the University and to conduct a health instruction program in co-operation with the city and rural schools of Oakland County.

Frank F. Bachelder, Secretary.

EATON COUNTY

I am writing to report on our March monthly meeting. The meeting was held March 25th, at Charlotte. The weather and roads being very bad, there were only nine from the Society present. We regretted this very much as Dr. Earle C. Smith, of Grand Rapids, was present to speak and we felt that he was entitled to a much better audience.

As a preliminary to Dr. Smith's talk Dr. H. J. Prall presented a paper on "Labor Following Hysterotomy." Following this Dr. Smith gave his lantern slide talk on "Common Skin Diseases, Di-

agnosis and Treatment." He showed some 200 slides and presented the subject in a most delightful manner. The Society appreciates very much Dr. Smith's efforts in bringing this treat to us.

There was no business session held at this meeting.

The paper read by Dr. H. J. Prall is presented to the Editor of the State Journal for their consideration.

Enclosed also is the check for seven members dues whose names are listed on separate sheet.

H. J. Prall, Secretary.

MECOSTA COUNTY

The list of officers of the Mecosta County Medical Society remains the same as those of the past year, which is as follows: President, Dr. G. H. Yeo; Vice President, Dr. B. L. Franklin; 2nd Vice President, Dr. M. L. Teeple; Delegate, Dr. L. E. Kelsey; Alternate, Dr. J. L. Burkhart; Medico-Legal Advisor, Dr. G. H. Lynch; Program Comsittee, Dr. J. B. Campbell, Dr. G. H. Yeo, Dr. Glenn Grieve.

At our last meeting, it was the desire of the Mecosta County Medical Society to have a district conference held at Big Rapids sometime during the year of 1926. Possibly that should include the Montcalm-Isabella-Clare Society. That part of the arrangment, however, we would be perfectly willing to leave with you or Mr. Smith. Would you kindly advise me if such arrangement could be made possible—to hold one of the district meetings here?

I am sorry to have delayed sending this list of members of the Mecosta County Medical Society, but I assure you it was unavoidable.

D. MacIntyre, Secretary.

NEWAYGO COUNTY

The Annual Meeting of the Newaygo County Medical Society was held at noon, February 20, 1026 at Kimbark Inn, Fremont, Michigan. Minutes of the previous meeting were read and approved. Motion made by Dr. Waters and seconded by Dr. W. Geerling that the minimum program, as recommended by the State Society, be adopted, and the Secretary be instructed to communicate with adjoining County Secretaries. Motion prevailed.

The following officers were then elected for the ensuing year: President, Dr. A. C. Tompsett, Hesperia; Vice President, Dr. N. DeHaas, Fremont; Secretary, W. H. Barnum, Fremont; Committee on Medical Defense. Dr. N. DeHaas, Fremont; Delegate to M.S.M.S., Dr. J. C. Branch, White Cloud; Alternate to M.S.M.S., Dr. C. A. Mateor, Fremont . H. Barnum, Secretary.

GRATIOT-ISABELLA-CLARE COUNTY

The Gratiot-Isabella-Clare County Medical Society had as its guests Dr. R. Earle Smith of Grand Rapids, and Harvey George Smith, Executive Secretary of the Michigan State Medical Society.

Mr. Smith gave an interesting talk to the members present about the work of the State Society and about its relations to the public.

Dr. Earle Smith showed about 150 slides of the common skin diseases and explained each disease as he went along. The pictures were splendid and the doctor made the subject of skin diseases very interesting. Like any other illustrated lecture, it simply has to be seen and heard to be appreciated.

E. M. Highfield, Secretary.

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

DISEASES OF THE NEW BORN: John A. Foot, M.D. J. B. Lippincott Co., Philadelphia.

This monograph concisely discusses its subject in acceptable form and imparts that knowledge that is so essential in the treatment of the new born infancy. It is timely presentation and one that should awaken doctors to the fact that if they are alert to these diseases they may materially reduce mortality. The text is clear, illustrations good with diagnosis and treatment concisely set forth.

MODERN METHODS OF AMPUTATIONS: Thomas G. Orr, A. B., M. D. Price $3.50. C. V. Mosley Co., St. Louis, Mo.

The outlining of practical methods of amputations is well set forth. It is a guide that will aid every man who attempts to perform an amputation.

A MANUAL OF HYGEINE AND SANITATION: Seneca Egbert, A. M., M. D., Dr. P .H. Eighth Edition. Price $4.00. Lea & Febiger, Philadelphia.

Here is one of the few really excellent manuals on an important subject. It is void of fads or fancies. It is practical and based on substantial facts and experiences. Every health official, every teacher, yes and every doctor should be familiar with its contents and conform to its teachings.

HANDBOOK OF DISEASES OF THE RECTUM: L. J. Hirschman, M. D., Detroit. 430 pp.; 250 illustrations. Price $6.50. C. V. Mosby Company, St. Louis, Mo.

This is the fourth revised edition of a text that is of inestimable value. The author is so very favorably known to our Michigan profession that further comment is not required. Suffice it then when we state that the author has imparted clearly and fully essential factors as well as diagnosis and treatment that will aid the reader to better attend those who consult him upon these conditions. It is a text that will even be a source of help. It is modern and abreast of all that is known on the subject.

YOUNG'S PRACTICE OF UROLOGY: Hugh H. Young, M. D., and David M. Davis, M. D., Johns Hopkins University. With the collaboration of Franklin P. Johnson. Two octavo volumes totalling 1484 pages with 1003 illustrations, 20 being color plates, by William P. Didusch. Per set: Cloth, $25.00 net. W. B. Saunders Company, Philadelphia and London.

This master text is based upon the study of 12,500 cases coming under the author's care. The senior author's name at once commands attention for he who

has remained abreast of medical progress is aware of his valued contributions to urological literature. To fully comment upon this text would require abstracting from each chapter. The reader must therefore accept our general comments which, summarized, are: The most complete text existant on urology; illustrated fully and pointedly, complete in etiology, and pathology; basic symptoms and diagnosis clearly set forth with treatment fully imparted. It is a text that supercedes all others.

SIXTY YEARS IN MEDICAL HARNESS: Charles Beneulyn Johnson, M. D. Introduction by Victor Robinson, M. D. $3.00 postpaid. Volume I of The Library of Medical History. Published by Medical Life Press, 12 Mt. Morris Park, West, New York, N.Y.

Received.

THE SURGICAL CLINICS OF NORTH AMERICA: (Issued serially, one number every other month). Volume VI, Number 1 (Philadelphia Number—February, 1926). 325 pages with 136 illustrations. Per clinic year (February, 1926 to December, 1926). Paper, $12.00; Cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

Of continued interest and value, containing much that is helpful.

ADVANTAGES OF DRIED MILK IN INFANT FEEDING

In recent years dried milks have achieved great popularity among physicians in cases where an adequate supply of breast milk is unavailable, and in cases where there is inability on the part of the infant to tolerate ordinary cow's milk or, where a good, clean, wholesome supply of cow's milk is not procurable.

The reason for this popularity is quite obvious, as dried milks have many advantages which recommend them to the busy practitioner. They are practically sterile, have excellent keeping qualities, their nutritive properties are unimpaired, and they offer to the mother or nurse a safe supply of dependable cow's milk which is easily and quickly prepared for infant feeding.

Lactogen, a dried milk put out by the Nestle's Food Company of New York, is one of the recent additions to the many dried milks now on the market, and is meeting with great favor from physicians, owing to its close approximation to human milk in component parts and ease of digestion.

In the process of its manufacture the integrity of the vitamine is retained and by a special hemogenizing process the butter fat globules are reduced to approximate the butter fat globules in human milk.

Lactogen is particularly useful as a complementary food for the nursing infant, as it permits concentrated feedings with an increased food intake, without requiring large amounts of fluid. When given for this purpose, especially in infants whose stools have a tendency to be loose or frequent, Lactogen tends to reduce the number of stools and improve their quality.

One of the outstanding advantages of Lactogen is the fact that it is marketed only upon the recommendation or prescription of physicians; there are no feeding instructions upon the trade package.

To physicians desiring samples and literature regarding Lactogen and its uses, the Nestle's Food Company, 130 William Street, New York, will be pleased to mail same upon request.

LYMPHOBLASTOMA (MALIGNANT LYMPHOMA)

Four hundred and seventy-seven cases of lymphoblastoma are analyzed by George R. Minot and Raphael Isaacs, Boston (Journal A.M.A., April 17 and 24, 1926), as related to age, sex and duration, and the effect of roentgen-ray and radium irradiation and surgery. The diagnosis of some form of lymphoblastoma was established by the pathologic examination of tissue in 85 per cent of all the 477 cases. The clinical aspects of the other 15 per cent were so typical of lymphoblastoma that the cases have been included in the group. Of the 477 patients, 401 are known to be dead, and 76 are living. Lymphoblastoma occurs with greater frequency in males than in females. The highest incidence of lymphoblastoma is in patients aged 20 to 24, with a secondary rise in frequency in those from 35 to 39. The disease appears to be relatively rare in males at the time of puberty (10 to 14 years of age), while the frequency of lymphoblastoma in females of this age and at the ages of 45 to 54, or the time of the menopause, is to be noted. The statistical facts recorded concerning the age incidence of patients with lymphoblastoma serve to emphasize what Bunting and others have noticed, that age and sex importantly influence the susceptibility of the lymphoid tissue to disease. These factors play a role not only in age incidence and occurrence of type of lmyphoblastoma, but also in the rate of progress of the disease state. Suitable irradiation with roentgen rays or radium is a distinctly beneficial form of treatment for patients with lymphoblastoma, bringing relief to many sufferers. There were 163 patients of the 401 known to be dead that were not treated with any form of irradiation; 33 of these underwent a surgical operation with removal of a considerable about of diseased tissue. The ages and the sexes of this group and the character of their disease states seems to be essentially the same as for 238 patients now dead who received treatment with either or both roentgen rays or radon. A surgical operation of a therapeutic sort was performed on 34 of the irradiated patients. In spite of the fact that the average duration for all cases is 2.76 years, there were 41 patients (10.2 per cent) that had lymphoblastoma for six years or more before death; 28 (11 per cent) of those irradiated, and 13 (8 per cent) of those not so treated. Seven (1.74 per cent), four irradiated and three that were not, lived more than 10 years after the initial symptoms. A comparison of the duration of the disease in the irradiated and nonirradiated patients suggests that this therapy has lengthened particularly the life of patients destined by nature to have their disease less than two and a half years, and has not influenced the course of those living long. A comparison of the data concerning the duration of the irradiated and nonirradiated diseased patients, plotted by the method of summation, shows that at any given time there was a greater percentage of patients living that were irradiated than were not. Even so, the differences at any period of duration are slight. The average duration of the disease in the 238 patients irradiated was 2.88 years, and in the 163 that were not 2.45 years. The patients treated by surgical measures, whether or not they received roentgen rays or radon, had lymphoblastoma on the average 3.67 years, or 1.11 years longer than the average duration (2.56 years) of the disease in the 334 not undergoing a therapeutic operation. The chances of the former living beyond three years from the time of their first symptoms was greater than for the whole group of irradiated patients.

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Original Articles

INTESTINAL INFECTIONS AND FOOD DISTURBANCES OF INFANCY

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The nutritional disorders of childhood have given doctors of every age a great deal of concern as to their nature. At first there was very little known about them. There was no attempt at classifying them. In 1837 a Frenchman attempted to classify the intestinal diseases of infancy, based upon symptomatology.

About 1880, Wiederhofer, at that time the distinguished Professor of Pediatrics at Vienna, writing a contribution for Gerhardt's system of children's diseases, made a classification based upon the anatomico-pathological conditions. He was assisted in this attempt by Professor Kundrat, who was at that time the Professor of Pathology at the Imperial University of Vienna, one of the distinguished members of his period and a pupil of Rokitansky.

This attempt failed because the pathological and histological changes were inadequate to explain the symptoms. They found practically nothing, and still these patients continued to come to the mortuary. The changes which they described were, for the most part, postmortem. This era passed by with nothing contributed except the keen clinical descriptions of Wiederhofer, Baginsky and Soltmann and other pediatricians of this period, but these descriptions have been modified and revised by modern teachers.

Then came the bacteriological era. Escherich described the colon bacillus, and Lesage and others attempted to find out what the bacteria of the intestines contributed to the production of these diseases. They found a great number of organisms in the intestinal canal, but for the most part few were pathogenic. It is true that there are certain organisms that may produce infections, but if we ask ourselves at this moment what is the nature of these diarrheal diseases—what causes, for the most part, the gastro-intestinal disturbances of infancy and young life—we may say two things. In one instance there is a certain group of gastro-intestinal diseases that are due to infection. In the second instance there is a group that is due largely, at least so far as we know, to food disturbances. The baby's food makes him sick. The best example of the infection is dysentery. Whether the disentery bacillus is the Flexner or the Shiga, whether it is due to the ameba histolytica, or whether it is due to paratyphoid, there is a definite infection of the bowel, just as definite as typhoid fever. There is a condition of the bowel in which pathologic lesions occur, such as ulcers in the ileum and descending colon. A definite, acute infectious disease results, characterized by blood, mucus and pus in the stools, and diarrhea. There may be twenty, thirty or forty stools a day, which deplete and exhaust the patient. High fever and leucocytosis are of common occurrence. This acute infectious process sometimes, in fact frequently, leads to the death of the child.

In the southern part of the country, in the cities and smaller communities alike, this disease occurs with a certain degree of frequency, probably more frequently there than anywhere else in the United States. The physicians who practice south of the Mason-Dixon line know dysentery; those who practice in the tropics and in the subtropics frequently encounter the dysentery of childhood. The disease is of less frequent occurrence in the north temperate regions. It is extremely fatal, especially in younger childhood. It exhausts and depletes these children.

The most common organism found is the Flexner bacillus. The Shiga organism is found, but not so frequently in this country. The amebic dysentery does not occur very often in America.

This is an example of an intestinal infection. How shall we treat it? It is treated

first of all by preserving or conserving the little patient's strength, by keeping up his nutrition and diet, by replenishing the constant fluid loss through the bowels because of diarrhea, by combating the fever, and by increasing his power of resistance.

If he happens to be ill with the Flexner type of disease, the immune serum may be tried. Pain, tenesmus, and diarrhea may be alleviated by opiates in small doses, not in a mixture, but as paregoric or minute doses of codein. Sometimes these patients do well if they are given animal charcoal or kaolin or prepared chalk.

If the patient shows evidence of dehydration, which is indicated by wrinkled skin, loss of skin elasticity, depressed fontanel, and general toxic symptoms, water should be given by mouth, or normal saline solution containing glucose may be given intravenously, or salt solution may be given under the skin or intraperitoneally. Blood transfusion has been recommended and may be employed in desperate cases. In any event, these children need food—buttermilk in small doses, protein-milk or other protein foods. Prolonged starvation should be avoided.

How about giving them cathartics? The old-fashioned treatment was to give them a dose of castor oil every day. Do we do that now? Unfortunately we do, but unfortunately it is a mistake in treatment. It is just as much a mistake in treatment to give physics as it would be to irritate a wound by continually manipulating it when in the process of healing.

Do we wash out the bowels frequently? Yes, we do, too frequently. Is it correct treatment? No. Many of these patients are over-treated. Dysentery is an infection, a self-limited disease. It should be treated much the same as typhoid fever or much the same as Dr. Lord, the preceding speaker, would have you treat a pneumonia.

Now we come to the other group. I have already told you that the attempt was made to determine the bacteriology of these intestinal diseases. Czerny in 1889, or thereabouts, attempted to find out what the cause of these disturbances was, and he said, "It is not infection an dit is not pathological degeneration, and there are no gross lesions to be found. These disturbances are due to food." And therefore he made etiological classification of these diseases based on food disturbances. He included the infections. He said that the fat, the sugar, the salts or the starch might injure the patient. That was the beginning, and that was a very good beginning.

Later on, Finkelstein said, "That is very good, that is an etiological classification, but what we need is a clinical classification. These are food disturbances, but these food disturbances are such as interfere, for example, with gain in weight. The food does not nourish the child; it is not adequate for his physiologic needs." He also said that this was the first kind of a food disturbance, which he termed a weight disturbance, or failure to gain in weight or a balance disturbance or a simple dystrophy.

As a rule, weight disturbance or simple dystrophy is not characterized by diarrhea. It is rather manifested by failure to gain in weight and constipation. These children are usually artificially fed, those who are fed on cow's milk, and who are receiving too much fat and too much protein. The excessive protein tends to cause an alkalin reaction in the intestinal tract. The fat in the presence of this alkalin reaction combines with the calcium and the magnesium salts and produces soap—hard soap. Therefore, the "soap stools" that the baby is passing mean that he is receiving an inadequate amount of nourishment. He is losing protein and fat. The baby is not gaining in weight; he is losing in weight, and is constipated.

What is the remedy? As a general rule, if the patient received in addition to the fat and protein, carbohydrates in sufficient quantity, there would be a normal amount of fermentation going on. The normal processes would proceed, and there would be less constipation. There would be less loss of calcium and magnesium from the body, and the patient would improve. If he is given breast milk, which contains less protein, he will improve.

As far as the vitamins are concerned, he needs them. He needs them for the normal processes of growth; he needs them for the prevention of rickets; he needs them for the prevention of scurvy; he needs them so that he should not develop, for example, eye lesions like keratomalacia. It would be well to make the general rule to give every artificially fed baby cod-liver oil, as well as orange juice, as early as the sixth or eighth week of life, in order to avoid the deficiency diseases. The group of symptoms which has been designated as simple dystrophy is frequently the first link in a chain of disorders which if not checked may progress to more serious or more disastrous clinical states.

I have already told you that these diarrheas might be infectious. Dysintery is an example of that. Then there is another topic that deals with the diarrheas due to food disturbances. These diarrheas may de-

pend upon an excess of fat in the food, or they may depend upon an excess of sugar in the food or upon the giving of spoiled food in certain instances. One might say that spoiled food may be taken in a certain proportion of cases without injuring the child. We don't know, exactly, what organisms spoil the food, and we don't know exactly what the substance is which is produced by organisms which spoil food.

On the other hand, the diarrheal disorders may be produced in infants who are fed sterilized milk. A certain number of babies are receiving lactic acid milk, and they thrive and do well, in fact, better than they do on any other kind of food.

Something happens to the food. We know that when the normal digestion of the infant is interfered with, there is a change in the flora of the gastro-intestinal tract, particularly in relation to the distribution of the organisms. Ordinarily, under normal circumstances, there are no bacteria in the upper portion of the intestinal tract, in the stomach, and the duodenum, but when disease occurs, producing indigestion and stasis, the organisms accumulate and produce fermentation. In the presence of sugar or fat they produce deleterious substances which cause diarrhea.

One might go on and speculate as to the cause. Moro, for example, and Moro and Hirsch, thought that the disease was due to the action of colon bacilli on the whey proteins and that this action produced amino acid derivatives. The most poisonous of all, histamin, acting directly upon the intestinal tube, may produce severe toxemia and diarrhea. It is supposed, for example, that concentrated salt solution and concentrated sugar solution may produce direct irritation or lead to fermentation. Thus, we have a number of causes related to the food.

Of the external causes, the most powerful is external heat. There are more babies who sicken and die in the summer or during the heated portion of the year than at any other time. Babies who are overclothed in the summer time. We may speak for a moment of the perenteral infections. Parenteral infection means that there is an infection outside of the gastro-intestinal tube that may produce any one of these diarrheal diseases. It may be an otitis, a mastoiditis, a severe tonsilitis, a pneumonia, a bronchitis, a pyelitis, an infection of the accessory nasal sinuses, or whatnot. Dr. Marriot has been talking particularly about the infection of the mastoids. Such an infection lowers the functional activity of the intestinal wall.

Finkelstein has produced an elaborate theory and says that the infantile diarrheas may be due to a disturbance of the normal water metabolism, that water is forced into the bowel and released from the cell and tissue, and that the cell loses its water content and the whole body suffers.

We have considered as etiological factors in the production of diarrhea the effect of heat, the effect of food directly, and the possible effect of spoiled food. Then there is the condition we call hunger diarrhea in children who are underfed, who receive an insufficient amount of food, though they are not absolutely on a starvation basis. Such babies may develop diarrhea.

These diarrheas are of different grades. One baby may suffer from a mild type. Another baby loses so much water from his body, and continues to lose so much, that he suddenly develops a condition that the old doctors called cholera infantum. He becomes dessicated, dehydrated; he becomes toxic and develops an acidosis. This condition of acidosis, dehydration and toxemia we call alimentary intoxication. Another one has tremendous fever and becomes comatose; he has leucocytosis, severe diarrhea, and nervous symptoms. He may have sugar and albumin in his urine, and unless he is successfully treated, in a very brief time he dies.

Another infant who has had diarrhea develops a condition of marasmus or atrophy —what Finkelstein called decomposition, and what Marriot in his publications calls athrepsia.

It would be very interesting if the allotted time permitted us to go more deeply into the clinical course of this group of disorders. Simple dystrophy, dyspepsia with diarrhea, atrophy or decomposition and alimentary intoxication are progressive stages denoting the increasing severity of the disease process. These food disturbances are not merely digestive disturbances or diarrhea. They signify a severe constitutional disorder. The blood, the tissues, the water content of the tissues, the water content of the cells, and the amount of glycogen in the liver are all altered. You can think of this as a constitutional, a far-reaching disturbance, extending further than the intestinal tract, involving the cells and the tissues that lie distributed throughout the body.

I have outlined the treatment for simple dystrophy, for dysentery. How shall we treat, either simple diarrhea as in dyspepsia, or severe diarrhea as in alimentary intoxication. The principle is about the same.

First of all, there is prophylaxis. Prophylaxis means everything that is included in child hygiene, and as Dr. Helmholz told

you the other day, the world is gradually coming to this child hygiene, to this prevention, to this prophylactic medicine. The child should be guarded so far as his clothes, his diet and his sleep are concerned. Every measure should be taken to promote his health and everything should be avoided that tends to produce disease.

Concerning active treatment, given a baby with a diarrhea, progressive emaciation, loss of appetite and vomiting, the practitioner as a general rule begins by giving cathartic drugs. The point that I should like to emphasize and the message that I should like to bring to you is to avoid the use of these laxative drugs. The general practitioner, wherever you find him, is enslaved to this method of treatment. The specialists are pretty generally agreed that laxative remedies are of no avail. The general practitioner who is a specialist in ten or twenty different branches of medicine and who is guided by his experience and earlier teachings is not yet convinced.

The fact is that cathartic drugs increase peristalsis, increase the number of stools and the water loss from the body, and thus aid in the production of dehydration. They also irritate the intestinal mucosa, and the short of it is, they do no possible good.

The treatment is mainly one of diet and hydrotherapy. If the baby is at the breast, continue this natural food. Give him small quantities, frequently repeated. If you are compelled to give artificial food, buttermilk or protein milk in small quantities may be employed. The question arises as to how long these patients should be deprived of food. It has been found that it is an error to starve them for a long time. In the older days, it was not an uncommon practice to deprive these little patients of food for a week, ten days, or even two weeks. Perhaps they were given barley water or egg albumen water, but these did not contain enough sustenance to prevent starvation.

The baby who is starved for a long period declines precipitously in weight, loses his resistance against infection, repair is no longer possible, and death is inevitable. Instead of depriving these children entirely of food, it is better, as has been said, to omit one or two feedings and then to proceed by giving one of the detoxicating foods, breast milk, buttermilk or protein milk in small quantities, frequently repeated.

Even where a baby is breastfed, it must be considered an error in the presence of diarrhea to deluge him with this specific food. His digestion is inadequate to take care of large quantities and his condition may be made more serious if they are employed. It may be of interest to ask why buttermilk is advocated in these cases. It contains a minimum amount of fat, a reduced amount of sugar, and the possibility of fat and sugar fermentation in the bowel is diminished. The same applies to protein milk. Sugar should soon be added to both of these preparations in order to increase their nutritive value. The diet should be gradually, though watchfully, increased, and the patient should be tided over this critical period without expecting a normal increase in weight.

Sometimes a group of serious symptoms presents itself. The baby may show marked toxic symptoms, he may be suffering from acidosis or may be dehydrated. The indications for treatment of these latter complications is to increase in every possible way the water intake. Water may be given by mouth, under the skin as normal salt solution, or a saline infusion with the addition of glucose may be given intravenously, the longitudinal sinus being the most useful route in young infants, or saline may be given intraperitoneally. The use of glucose intraperitoneally should be avoided since it may produce a sterile peritonitis.

If the baby is in collapse, active treatment should be employed. External warmth and mustard packs should be used in addition to the administration of fluids which has already been referred to. Stimulants may be required. Digitalis, which is commonly employed, is of doubtful value. These patients are suffering from circulatory collapse, not cardiac. On the other hand, caffeine, adrenalin, possibly pituitrin, equalize the circulation, prevent stasis in the peripheral vessels, and sometimes relieve the shock-like condition from which these patients suffer. For the vomiting which is frequently present, cold water, cold buttermilk, may be given in teaspoonful doses at short intervals. Stomach washing sometimes relieves nausea and vomiting.

Just a word about the antiseptic drugs. They are no longer employed, and their use is obsolete. In extreme restlessness or severe diarrhea, small quantities of an opiate may be required. Further than this, there is no indication for the use of drugs in the food disturbances of infancy.

THE USE AND ABUSE OF THE WASSERMANN REACTION

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Twenty years have passed since the application of the principle of complement fixation to the serological diagnosis of syphilis.

No biologic test has been so widely accepted and used. Its application to the diagnosis and treatment of syphilis has been of inestimable value. The tendency to depend solely upon the Wassermann reaction for the diagnosis of syphilis, however, is to be regretted. The disease unfortunately does not lend itself to this single key method of diagnosis and many types of syphilitic involvement are accompanied by a negative Wassermann reaction. It is only by the combined use of the serological tests and a thorough clinical examination that the highest degree of proficiency in the diagnosis of syphilis may be reached.

We have regressed from the high plane of clinical syphilology as exemplified by Fournier and Hutchinson of pre-Wassermann days. For this the Wassermann reaction can justly be blamed. It is time to review its shortcomings, to restrict its indispensable aid to the diagnosis of latent syphilis and to consider it simply as a confirming sign which may or may not be present in support of the diagnosis of clinical syphilis.

It is to be regretted that many practitioners and clinics are satisfied with a diagnosis based simply upon a positive Wassermann reaction and make no effort to determine the type of clinical involvement so necessary to the intelligent management of the case. While certain cases will fail to reveal any clinical evidence of the disease to the most thorough physical examination, it should be our aim to keep the percentage of such latent cases at the lowest possible point. It is the endeavor of modern syphilologists to perfect themselves in the recognition of the early lesions of late syphilis such as occur particularly in the viscera, cardiovascular and central nervous systems and not be satisfied to await gross manifestations which, because of their great destruction, offer so little in the way of repair from treatment.

Variations in the technic of the Wassermann test with multiple antigens, ice-box fixation, etc., have served to confuse the practitioner. Efforts at standardizing the test as championed by Kolmer are commendable but have met with indifferent response from serologists. In general while the highly cholesterinized antigens are of value in following treated cases and in confirmation of the diagnosis where clinical evidence is present, less than strongly positive reactions are not to be depended upon for diagnosis. Laboratories using such tests usually run parallel reactions with less sensitive antigens. Where the results are not in agreement, with the exceptions noted, further investigation should be made. The remarks made in this paper in reference to the Wassermann reaction are applicable also to the Kahn test, now so widely accepted as practically paralleling the older and more technical reaction.

It is now accepted that syphilis is the only disease present in this latitude that will give a strongly positive Wassermann reaction with ordinary antigens. Yaws is present only by importation. Leprosy, particularly the nodular type, gives a high percentage of positives, although Kolmer[1] claims that a strongly positive reaction with his modification of the test means the co-existence of syphilis. Moderate degrees of inhibition of hemolysis with high titre antigens are occasionally associated with severe malignant cachexia, tuberculosis, acute exanthemata, pneumonia, septicemia, sub-acute bacterial endocarditis, trypanosomiasis, relapsing fever, general anaesthesia, pernicious anemia, malaria, pregnancy, systemic mycotic infections, and very questionably diabetes, but they are exceptional. Otherwise the incidence of false positive reactions is a question of technical or clerical error and when it occurs frequently means an oversensitive Wassermann technic or is a reflection on the personal equation in the laboratory reporting the test. A negative Wassermann reaction may be induced in a positive case by the ingestion of alcohol and blood drawn shortly after eating with its increased lipoidal content may have greater anti-complimentary properties.

THE WASSERMANN REACTION IN DIAGNOSIS PRIMARY SYPHILIS

Every effort should be made to make the diagnosis of syphilis upon a primary lesion before the Wassermann reaction on the blood serum becomes positive. While the idea of abortive cure with a short course of treatment in such sero-negative primary cases has been shown to be erroneous, such cases do offer very much better possibilities of permanent arrest. It is the physician's duty to the patient to make the diagnosis at the very earliest possible moment by darkfield examination. If he is not equipped and capable of making a diagnosis by demonstrating the Spirochaeta pallida in the serum from such lesions he should not accept the responsibility of the case. The Wassermann reaction does not become positive until two to three weeks after the appearance of the chancre. The darkfield is at its best during the first two weeks and at the time the Wassermann reaction is practically always negative.

Drug store advice and quack practice of treating penile lesions with calomel powder

and caustics often makes it difficult for the conscientious physician to render a diagnosis by darkfield examination. Frequently Spirochaeta pallida may be demonstrated in such a lesion by aspirating with a hypodermic syringe from its indurated base after first injecting one to two minims of normal salt solution. If this procedure fails aspiration in a similar manner should be made from one of the neighboring satellite lymphnodes if readily accessible. This is particularly valuable in making a diagnosis on lesions occuring in the mouth. One may be certain that any spirochaetes found in such enlarged glands will be Spirochaeta pallida and not contaminating types which may so closely resemble Spirochaeta pallida morphologically as to make the use of the darkfield hazardous for diagnosis on mouth lesions.

The "local" Wassermann was introduced by Klauder and Kolmer[2] in 1921 and its value in the early diagnosis of primary lesions has since been confirmed by a number of observers. The usual Wassermann test is employed using 1/10 and 2/10 c.c. of serum or exudate expressed from the chancre. Positive results are obtained while the reaction on the blood serum is still negative. Treatment applied to the local lesion which may decidedly interfere with darkfield examination does not affect the "local" Wassermann result.

The diagnosis of chancroid can only be made by elimination. The use of the darkfield and Wassermann follow-up has shown the fallaciousness of a diagnosis based on the morphology of the lesion. Mixed infections are very common. Unless phagedenic characteristics are present requiring more drastic treatment, suspicious lesions should be treated with normal salt solution wet dressings and the darkfield examination repeated daily at least for one week. A Wassermann test should be made at weekly intervals for one month and then monthly for three months. At each visit the patient should be stripped and examined in a well-lighted room for any evidence of secondary syphilis. Only at the end of this time can the patient be safely assured that his lesion was only a "soft sore". A history of syphilis is frequently masked in that of gonorrhea. A Wassermann follow-up of gonorrhea cases would nip in the bud at least 20 per cent of the cases of syphilis. A word of caution should be added for the cases of herpes progenitalis as otherwise through failure to recognize the clinical characteristics of these recurrent herpetic lesions patients may be subjected to unnecessary expense and mental anxiety. The diagnosis of chancroid on clinical grounds cannot be countenanced and only a short follow up of cases with the darkfield and the Wassermann reaction is required to convince any physician of his inability to eliminate syphilis on the grounds of clinical characteristics of chancroidal infection.

The institution of treatment on a basis of suspicion or a therapeutic test should be very decidedly discouraged in early syphilis. It masks the true diagnosis, since non-specific lesions may heal under arsphenamin therapy, quickly destroys any Spirochaetae that may have been present and if intensely pursued (as it should be when once started) tends to prevent the development of a positive Wassermann reaction. In such cases it is impossible on the basis of a single examination no matter how clinically and serologically complete to state that the patient either did not have the disease or that it is arrested. The victim is sentenced, and perhaps falsely, to a life time of observation and dread of the disease. Be quick to suspect syphilis but be sure of your grounds before making a diagnosis. Where it is a question of public health and prevention of exposure such patients should be isolated until the diagnosis can be made with certainty.

SECONDARY SYPHILIS

The Wassermann reaction reaches the height of its value in secondary syphilis where it is positive in practically all cases except occasionally in malignant rupial and pustular types. The indications are not to depreciate its value in this field but to urge its wider use and especially so in chronic sore throats. It must be remembered that syphilitic patients are subject to the various non-specific dermatoses and a positive Wassermann reaction in the presence of a skin eruption does not make it necessarily syphilitic. Lichen planus, pityriasis rosea, acute guttate psoriasis, erythema multiforme, and the tuberculids probably cause the most confusion. Pityriasis rosea usually clears up in six weeks even without treatment. The others may be markedly improved by mercury or arsenic treatment and thus render a therapeutic test inconclusive. It is the general ensemble of the early syphilitic case plus the Wassermann test that makes the diagnosis and in typical cases the latter is hardly necessary.

The diagnosis can often be confirmed at once by the use of the darkfield, examining serum from mucous patches, condylomata, or moist papules about the genitalia or under pendulous breasts, for the presence of Spirochaeta pallida. In such cases care must be used to differentiate saprophytic spiro-

chaetes that may closely resemble Spirochaeta pallida in morphology. Such organisms may usually be eliminated by thoroughly cleansing the suspected lesions of necrotic material and securing serum for examination from the deeper portions of the lesion, by aspirating the infiltrated base, or involved glands as suggested under primary syphilis.

LATE SYPHILIS

The percentage of positive blood Wassermann reactions associated with the diagnosis of late syphilis depends upon the sensitivity of the Wassermann employed, the thoroughness of the clinical investigation and the amount of collateral evidence used in confirming the diagnosis. Where the Wassermann reaction itself is used as the only guide to the syphilitic etiology the percentage will of course be one hundred. In clinics where a high index of suspicion for syphilis exists and all diagnostic aids are employed plus thorough clinical investigation, the blood Wassermann reaction may be positive in only from 50 to 80 per cent of the cases. It is notoriously low in certain types such as vascular neuro-syphilis and the proportion of positive reactions approaches 100 per cent in others such as syphilitic hepatitis.

The clinical approach is especially indicated in late syphilis. This has been emphasized by Stokes[3] from experiences at the Mayo Clinic where group practice has shown the value of the thorough clinical investigation in addition to the serological for the highest efficiency in diagnosis. Of these special examinations the neurological, fundus, cardio-vascular, complete physical in a well lighted room as well as the detailed investigation of the history are particularly indicated. It should be remembered that a history of syphilis can be obtained in only about 70 per cent of males and thirty per cent of females. Unfortunately many practitioners consider that a negative history plus a negative Wassermann is sufficient to rule out syphilis even in the presence of suspicious clinical findings.

The provocative procedure and spinal fluid examination should have wider use as part of the serological investigation. The method, indications and value of the provocative procedure are well summarized by O'Leary[4] as follows:

THE PROVOCATIVE PROCEDURE

1. It consists of seven daily Wassermann tests following 0.3 gms. arsphenamin intravenously, with daily observation of the patient.

2. It involves four factors: a true provocative effect, 25 per cent; a series of tests by which to average the fluctuation, 50 per cent; a focal flare up (Herxheimer), 12.5 per cent; a short therapeutic test, 12.5 per cent.

3. It must be interpreted precisely as any other Wassermann test. False positives, single true positives among six negatives, and persistently negatives in the presence of syphilis occur.

4. Oversensitive antigens must not be used.

5. Negative provocative tests do not mean cured syphilis.

6. The procedure may help to identify uncured syphilis.

7. The test has no value alone, but is part of the syphilologic examination. Negative provocative and positive spinal fluid tests may co-exist.

8. The procedure is not a substitute for clinical judgment and in doubtful cases must be extended into a therapeutic test.

9. The procedure adds approximately 18 per cent to the average proportion of positives obtained with the Wassermann test.

10. A provocative effect may be obtained on the spinal fluid.

The spinal fluid examination is little used except in the larger clinics and hospitals in spite of all that has been written of its importance. This is largely due to a natural fear on the part of the patient and lack of enthusiasm on the part of the physician because of the technicalities of the test which make its application difficult in private work. The test is very easily performed. It is practically painless if novocain is used to anesthetize the skin, the needle is sharp, and the operator proceeds delicately, stopping at once if he should touch bone with its sensitive periosteum. The distressing headaches may be held at a minimum if the patient is kept in bed for 48 rather than 24 hours, or if the operator is technically equal to the use of a small needle with a special rounded point as described by Greene[5]. Unfortunately the spinal fluid test cannot be used with safety as an office procedure.

The complete serological examination should be obtained on the fluid: the Wassermann reaction on several dilutions, the cell count, the colloidal gold or benzoin reaction, and globulin test. These are of value in approximately the order named but it is the knowledge gained by the ensemble of all four tests that is necessary for diagnostic impressions. To have a Wassermann report only, particularly on a small or unknown amount of the fluid is practically valueless and is a failure to utilize all the knowledge that a complete examination of the fluid may reveal.

It is universally emphasized that the spinal fluid examination is of extreme importance in early syphilis in recognizing cases of asymptomatic neurosyphilis at a time when treatment will offer the highest percentage of good results. It should not be necessary to repeat the warning that the blood Wassermann reaction cannot be relied upon as a guide to the presence or absence

of central nervous system involvement. Thirty to 50 per cent of the cases of late neurosyphilis are accompanied by a negative Wassermann reaction on the blood serum if paresis is excluded.

A single positive Wassermann reaction on the blood serum should not be accepted as diagnostic of syphilis in the absence of confirmatory clinical findings since false positives do exist. There is a natural tendency to question a positive Wassermann reaction in the case of the clergy, the social leader, or the bank president, and to call for repetitions. The laborer on the other hand may be too readily convicted on the strength of a single positive reaction.

It is the weak positive tests that are difficult to interpret in the absence of conclusive history or clinical findings. Such tests should be rechecked especially with the provocative procedure and their full interpretation made in the light of the sensitivity of the antigen used, the patient's general condition, the absence of other factors tending to produce false or partial positive reactions, and a negative spinal fluid examination. If the patient is asymptomatic no harm can be done by waiting and checking at intervals clinically and serologically before final interpretation is made.

The intelligently employed therapeutic test is often of great value when a patient presents a suspicious condition without evidence of its syphilitic nature. It must be remembered that arsenicals have a tonic and non-specific effect on many conditions. Tuberculosis and the granulomas in general as well as malignancy offer the most frequent problems in differential diagnosis. Cutaneous tuberculosis may show surprising improvement under arsphenamin as emphasized by Stokes[6]. A carcinoma of the tongue may show decided improvement by cleaning up the secondary Vincents infection on the surface, which may lead to false security and delay the surgical interference necessary. The problem is often a vexatious one in syphilitic cases presenting an infiltration of the stomach or one of the tongue developing in a patch of leuko-plakia. Unless the history and signs point very definitely to syphilis it is better to operate first, removing a specimen for frozen section and depending upon the report for decision between radical removal or specific treatment. In differentiating tuberculosis from syphilis mercury should be used rather than arsphenamin employing preferably a soluble salt intramuscularly.

The Wassermann reaction in the latter half of pregnancy may be unreliable; there being both a false positive and negative tendency[7]. A persistent strongly positive reaction calls for treatment even in the absence of clinical confirmation or history in an endeavor to prevent infection of the fetus. Weak positives may call for further investigation of the patient clinically as well as the marital partner.

The cord Wassermann reaction may be moderately positive and later investigation of the child be negative both clinically and serologically. It is possible perhaps for immune bodies from the mother to be present in the placental blood in the absence of infection of the child. Similarly the cord Wassermann is frequently negative in the presence of active clinical evidence of hereditary syphilis in the child[8]. The Wassermann reaction is more reliable at the end of one month and in the absence of any clinical evidence of the disease should be rechecked at that time. These observations do not justify a failure to treat for syphilis any mother or child in whom repeated strong positive reactions can be obtained.

THE WASSERMANN REACTION IN TREATMENT

While the Wassermann reaction is of inestimable value in diagnosis, it cannot be relied upon as a guide to the amount or duration of treatment. One of the most common abuses of the Wassermann reaction is the tendency of both the profession and the patient to use it as such a guide. The faith many patients place in their Wassermann reaction is surprising. It is up to us to correct this viewpoint. The patient will probably be re-educated even more slowly from this one criterion standard than the profession.

Just as the Wassermann reaction is negative in early primary syphilis in the presence of innumerable spirochaeta pallida, so may it be negative before cure is obtained. The Wassermann reaction is frequently negative in the presence of clinically active syphilis and particularly so in the fulminating or malignant types. The degree of inhibition of hemolysis of the Wassermann reaction is not parallel with the degree of clinical involvement and is of no value in prognosis.

There is much evidence in favor of the view that the Wassermann reaction is simply a measure of the degree of immunity or defense mechanism developed by the host against the disease. If this is true a strong positive reaction has some favorable prognostic value. While the reaction tends to become negative under treatment and undoubtedly so if the disease is eradicated, in late stages clinical arrest is all that can definitely be hoped for. If this is accompanied by a persistently positive Wasser-

mann reaction it is probable that such a patient has a higher degree of resistance to aid in holding the progress of the disease in check. Unfortunately responsibility in a Wassermann fast case cannot be so easily dismissed since a large proportion are accompanied by clinically active syphilis. This must be deligently searched for, particularly in the cardio-vascular and central nervous systems, and the patient kept under close observation rather than be dismissed to rely on his supposedly high resistance.

Modern treatment calls for a maximum minimum amount of treatment as determined by past experiences in relation to progression and relapse, regardless of the Wassermann reaction. The complete and thorough clinical examination and general considerations of the patient as to age and life expectancy, as well as the aggregate experiences of modern syphilographers must be the guides to the amount of treatment for any given case. While a negative Wassermann reaction gives an added sense of security in such cases, a persistently positive calls for judicious clinical management and observation rather than ruthless hammering with treatment in the effort to reduce serological findings to negative. Sporadic and unbalanced treatment tends to lead to Wassermann fastness. That many cases are really examples of clinically active syphilis of the viscera, cardio-vascular and central nervous systems has already been emphasized. While there is no hard and fast rule as to the amount of treatment necessary to constitute a Wassermann fast case, in speaking of such cases I refer to those that have received acceptable treatment by modern standards for a period of from one to two years. Non-specific treatment in the form of foreign protein or febrile reactions, while they show a definite tendency to reverse the Wassermann, are not warranted on the basis of clinical experience where they are used simply for this purpose. Many seemingly Wassermann fast cases will become negative under further follow-up mercurial or bismuth treatment. Indeed some may return to negative after a judicial rest period alone. Occasional cases of this type should not be used as proving the efficiency of some particular drug (usually proprietary).

The question of whether clinically negative cases of Wassermann fast syphilis will show any higher evidence of clinical involvement at some later date than a similar group of clinically and serologically negative cases remains to be seen. Some authorities including Wile[9] feel that the prognosis in such Wassermann fast cases is as good or better than in similar Wassermann negative cases and with this opinion modern theory agrees. Years of observation of such cases only can decide the question.

The Wassermann reaction has proven a very valuable guide to relapse but to depend solely upon this as a criterion means the oversight of many cases of cutaneous and mucous membrane relapse so dangerous to the community and also cases of asymptomatic neuro-recurrence with their later serious degenerative lesions.

SUMMARY

The Wassermann reaction has been of inestimable value both as an aid to the diagnosis and a guide to the treatment of syphilis. Its routine use as a part of the clinical investigation of every patient, particularly those between the ages of 18 and 40 and all surgical cases, would be rewarded by finding syphilis in many cases where it would otherwise be overlooked. The incidence of suspicion for syphilis by the profession is low and especially so in late cases. We err both on the side of not using the Wassermann reaction freely enough and of placing too much reliance upon a negative report. Unfortunately the reaction is not an infallible guide to the diagnosis of syphilis and is only one of the findings of the disease which may or may not be present. If a high efficiency in the diagnosis of syphilis is to be expected we will have to return to a greater dependence upon the clinical findings as of pre-Wassermann days as well as the use of other serological investigations as aids to the diagnosis instead of the present tendency to depend upon this reaction alone.

In the diagnosis of primary and secondary syphilis the wider use of the darkfield and Wassermann follow-up is urgently indicated.

Twenty to 30 per cent of the cases of late syphilis will be permitted to slip through our fingers if reliance is placed upon the Wassermann reaction alone. In such cases it is necessary to take into consideration the collateral factors of diagnosis. Of these the neurological, fundus, cardio-vascular, and thorough physical examination of the stripped patient must be carefully checked for past or present evidence of syphilis. The detailed history should be studied. Of the special serological investigations the spinal fluid examination and the provocative procedure should have wider use. A carefully interpreted therapeutic test may at times be necessary to decide the issue.

A single positive Wassermann reaction should not be accepted as diagnostic of

syphilis in the absence of confirmatory clinical findings, but should first be rechecked. Weak positive reactions should be rechecked and their full interpretation made in the light of the sensitivity of the antigen used and the presence or absence of confirmatory clinical findings. If the patient is asymptomatic no harm can be done by waiting and rechecking at intervals both clinically and serologically. The Wassermann reaction may be unreliable in the latter half of pregnancy and similarly the cord Wassermann as an index of syphilis in the child shows both a false positive and false negative tendency. This need not detract from the value of the test since it is unusual, but should act as a stimulus for ferreting out confirmatory evidence.

The Wassermann reaction cannot be relied upon as a guide to the amount or duration of treatment. The degree of inhibition of hemolysis is not parallel with the degree of clinical involvement and is of no value in prognosis. Modern treatment calls for a maximum minimum amount of treatment regardless of the Wassermann reaction. There is some evidence in favor of the view that the Wassermann reaction is simply a measure of the degree of immunity developed by the host; a strong reaction having some favorable prognostic value. While a negative reaction after intensive treatment gives an added sense of security, a persistent positive calls for special investigation for evidence of active syphilis particularly of the visceral, cardio-vascular and central nervous systems, for judicious clinical management and observation rather than ruthless hammering with treatment.

The Wassermann reaction is a valuable guide to relapse in following treated cases but must be supplemented by the thorough clinical examination and the spinal fluid test for the highest efficiency in the recognition of such cases.

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LABOR FOLLOWING HYSTEROTOMY—REVIEW OF PREVIOUSLY REPORTED STATISTICS AND REPORT OF A CASE

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The problem of the conduct of labor in a patient who has been previously subjected to hysterotomy or Cesarean section is always of interest. I present this review of reported statistics, and this case in an attempt to summarize and approach more closely the true incidence of the chief danger, rupture of the uterine scar.

E. L. King reports "that of sixty cases in whom subsequent pregnancy was possible, six have not been pregnant since, six have past through normal labors, two were delivered by forceps after long second stages, one has had a second Cesarean section, two have miscarried, (cause not stated), one returned with a ruptured scar, one died eighteen months after operation when six months pregnant (cause not stated), and forty-one could not be traced. On twenty-seven private patients (on whom thirty-three sections were performed) two were delivered normally, four had a second Cesarean, one had three Cesareans, four were cases so recent that no further report was possible, one sustained a ruptured scar at subsequent labor, five died (one after her second Cesarean) and ten in whom pregnancy was possible have not been traced."

To summarize King's series of seventy-eight cases in whom second pregnancy was possible, only twenty-three could be traced in whom full term pregnancies developed and of these given the test of labor the scar ruptured in two, an incidence of 8.69 per cent.

Findley in 1916 collected sixty-three cases of rupture in subsequent labor with seventeen maternal deaths. There is nothing, however, in this report that would indicate the incidence of the accident. In another report Findley concluded that not more than 2 per cent of ruptures occur, but gave no figures.

Holland collected statistics from 26 hospitals and under many surgeons in England with the following results. Total cases followed up 1103; no second pregnancies 613, second pregnancies 487. The outcome of these was (1) natural delivery 78; (2) repeated Cesarean Section 352; (3) aborted 47; (4) patient pregnant when heard from 86; (5) ruptured scar 18. In other words 18 out of a total of 96 test labors or 18.75 per cent, not considering the 352 cases of repeated Cesarean produced rupture. Con-

sidering these at or near term labors the incidence is 4 per cent, but some of these may have had the test of labor and hence the test of scar strength, but this point is not emphasized.

Gamble in a study of 63 pregnancies occurring in 51 women previously subjected to Cesarean section reports one ruptured scar, an incidence of 1.5 per cent. Only 17 of these cases terminated in vaginal delivery, the other 45 were again delivered by Cesarean section. This report is based on the work of a single well organized clinic while Holland's report is from various clinics and different surgeons and gives more average results, though both indicate that rupture is a real menace.

Asa B. Davis, lying-in hospital, New York City, reports 104 cases of Cesarean section. In this series were 23 cases in which section was performed the second time. He reports two cases of rupture of the uterine scar or an approximate incidence of 8.69 per cent.

The suture material has been considered and Holland contends that catgut is the least trustworthy with a rupture two and one half times as frequent as in the cases where silk is used, and that silk worm appears best of all. Others feel that the material used in suturing the uterus is a secondary consideration and that the suture technic is the all important factor. The suture should not be placed until the uterus is well contracted unless free bleeding forces one to hurry, and they should be tied tightly in order to allow for subsequent relaxation due to the unrest of the post partum uterus.

The location of the incision is a matter of importance, the transverse fundal type being especially weak. Operative manipulations, excessive distention of the uterus, and the use of pituitary extract are excessory factors in ruptures when the cicatrix is already weak.

E. Novak in a report of a case of rupture of the uterus through the section scar emphasized the following points: (1) rupture in second pregnancies is relatively rare; (2) infection following the first hysterotomy is the main contributing factor in second rupture. He even goes so far as to state "if the uterine wall has been properly sutured rupture in subsequent pregnancies will not take place if the uterine incision healed promptly without infection." He states further that the presence of stitch infection in the abdominal incision may be taken as evidence of infection and slow healing of the uterine incision, though it may have been sutured by the best technic. Later in his article he comments "A subsequent management of Cesarean patients should not be too strongly influenced by the fact that rupture of the uterus occurs in a small proportion of patients, probably 2 to 3 per cent."

J. W. Williams of Boston reports a series of 100 patients safely delivered one or more times by the natural passage after a previous Cesarean section and states that he believes the maxim "once a Cesarean always a Cesarean" is unscientific and unjustified.

J. Whitridge, Williams, Losee and others are quoted by Williams as having demonstrated that in a perfectly healed uterine scar regeneration of the muscle fibres takes place and the appearance of the scar is histologically equal to that of the rest of the uterus.

REPORT OF CASE

Mrs. R. L., age 21, entered the hospital January 28, 1923 because of extreme abdominal distention and severe edema of lower extremities. This condition was so serious that the patient was constantly in pain and unable to lie down.

Family history was entirely negative with the following important exception which was not revealed until after the operation. The husband's mother had one pair twins, the husband's grandmother was a twin and the husband's aunt had the same condition as this patient and was treated by Cesarean section at another clinic.

Past history, entirely negative.

Menstrual history, normal in all respects.

Merital history; patient married at age of 20. Husband living and well. There is no history of miscarriage and this is first pregnancy.

Present condition: The patient became pregnant in December, 1922. At the end of three months the abdomen began to enlarge rapidly and her face and legs began to swell. This increased until at the time of entrance in the hospital her condition was extreme. The urine, blood, temperature and blood pressure were all normal.

In consultation a diagnosis of a rapidly filling ovarian cyst complicating pregnancy was made and on January 29 she was operated under that diagnosis by the writer.

Operation—Upon opening the abdomen in the mid-line a huge cystic tumor filled the entire cavity. This was of such size that it could not be delivered. A trocar was introduced to empty supposed cyst and after evacuation of a great quantity of clear amber colored fluid, blood began to flow from the trocar. Further investigation now disclosed that the supposed cyst was an enormously distended uterus and that the trocar had been introduced into the uterine cavity. The opening was now enlarged medially and upon exploring the uterine cavity twin boys of about four month's were delivered and following these the placenta. The uterine wound was closed with single 20 day chromic No. 2 muscle suture and Lembert peritoneal suture with No. 1 plain catgut. The abdominal wall was closed in layers without drainage.

From the third day, convalescence was complicated by general septic condition with chills and with a temperature ranging from 101 to 105. This was accompanied by a septic though moderate vaginal discharge. Blood cultures through this period were negative.

The fever ran a course of approximately three weeks during which time a small abscess developed in the lower end of the incision which was opened and drained. The patient was removed home on February 18 to complete recovery.

Second admission—Report of second pregnancy and delivery.

The condition of this patient remained entirely normal throughout the ante-partum period.

She entered the hospital at 8 p. m. April 30, 1925, having slight labor pains. These continued intermittently throughout the night, though gradually increasing in intensity. Morphine Gr. ⅛ was given at intervals of about 4 hours and cervical dilitation proceeded through the next day. A baby boy of 8½ pounds was born without aid at 2:20 p. m. Convalescence was perfectly normal and the patient left the hospital on the 14th day.

GENERAL CONCLUSIONS

1. Rupture of the uterine scar in cases with normal pelves in pregnancy following hysterotomy is comparitively rare, probably 2 to 3 per cent.

2. Sepsis, the common enemy in Cesarean cases is no criterion as to the strength of the resulting scar. This point shown by this case.

3. The suture material is apparently not the main essential. There is much disagreement on this point.

4. Close supervision during trial of labor and surgical preparedness is necessary in these cases as rupture does occur.

5. The mortality of Cesarean operation is equal to that of accidental rupture during trial of labor. If the pelvic measurements are normal and the uterine scar bears the strain of full term distention, then there is a strong possibility that it will perform its further function in delivery.

6. More conservatism in these cases will probably prove beneficial.

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Note:—Since completing this review and report, I have received word of a normal delivery in a second case following Cesarean section performed in 1922 during an eclamptic seizure. This case also pursued a septic course during convalescence. Exact details of the second case are not available beyond the fact that delivery was normal.

IODIZED OIL (LIPIODOL) IN OTO-LARYNGOLOGIC DIAGNOSIS—OPAQUE INJECTION STUDY OF THIRTY-FIVE MAXILLARY SINUSES*

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Search for filling defects in body spaces, already long practised in the digestive and urinary tracts, has been introduced into the study of the nervous and respiratory systems by the employment of iodized oil (Sicard and Forestier).** Reverchon and Worms have demonstrated the use of this roentgenographically opaque material in the Eustachian tube, in dental cysts, in fistulae, and in the antrum of Highmore. Since December, 1925, the writer has injected 50 upper respiratory spaces. Interesting observations were made upon sphenoidal and frontal sinuses, and very helpful findings were obtained in cases of mastoid fistulae. All the other cases were of the maxillary sinus, in which the best results were secured.

Upon the usefulness of idoized oil within the maxillary sinus, Reverchon and Worms state, in substance: (1) The method becomes of interest after diagnosis of a maxillary sinusitis, to determine which the regular roentgenogram as a rule is sufficiently informative. (2) Older methods of roentgenography do not make clear the degree or nature of the lesions. Proper treatment varies with the lesions, superficial alteration yielding to needle puncture, and polypoid degeneration necessitating curettage. (3) The duration of suppuration and the success of first therapeutic attempts constitute the most decisive information hitherto available, but are surpassed in value by the results of the injection of this oil. (4) One can obtain the exact topography of polypi in contrast to the frequent difficulty of interpreting the ordinary film. The details of the operative procedure will often depend upon this knowledge.

This preliminary report deals with methods developed in the course of the injection of thirty-five maxillary sinuses, this number not including those cases which had been previously treated surgically. Results are offered in support of an opinion that the employment of an innocuous opaque medium in the roentgenological study of the maxillary cavity meets several practical clinical needs in a decisive way.

*Read before the Southwestern Michigan Triological Society, March 3, 1926.

**For descriptive account of Iodized Oil see: Pritchard. Stuart, et al.: Use of Iodized Oil in Diagnosis and Treatment of Bronchial Affections. J.A.M.A., 86:1119, April 10, 1926.

A SAFE PROCEDURE

Iodized oil is proved to be safe, if it is obvious that it can be introduced without trauma, and that it cannot, by decomposition or even unchanged, exert harmful effects. Introduction through the natural, or a previously formed artificial ostium is without trauma. The absence of such an opening makes a puncture necessary for diagnostic irrigation, and the use of an oil injection following irrigation adds nothing to the risk. No symptoms of injury or shock are observed in the cases. The iodine is in complete chemical union with the oil of poppy seeds and all its properties are masked. The compound has negligible taste and smell, and its presence is not felt, except in the throat, where it induces expectoration. Its complete toleration in other more delicate locations, as for example the bronchial tree, removes the suspicion that it may exert some subtle or delayed chemical irritation within the sinus. Its possible decomposition by light or air does not have time to occur with its prompt evacuation. Not enough is swallowed to produce symptoms of iodinism from intestinal absorption.

TECHNIC

In the technic, the aim, as elsewhere, is not merely to locate the cavity at a few points but to delineate its complete periphery. The authors mentioned advise the use of five cubic centimeters of the undiluted compound and state that it is retained for some time. In the present series this retention did not occur, except in two cases in which petrolatum was used in diluting the oil to increase viscosity. At the point of complete filling, the factors of viscosity and surface tension exert their greatest effect in preventing the re-entry of air at the os maxillaris. An incomplete filling is also incapable of interpretation in full detail. Therefore no limit should be placed on the quantity used to obtain proper filling, which in ten of the cases was over ten cubic centimeters.

A maxillary sinus requiring puncture is entered by the needle in the inferior meatus. A wire probe through the needle verifies that its point is free within the cavity. Any discharge present is then removed by washing it out with tepid normal saline solution, and it passes through the natural ostium into the middle meatus of the nose. Air from the syringe follows, while the head is moved so that the ostium is lowermost in position, so that all the fluid may drain out. The head is again turned, and expulsion of the air is accomplished, by the surface of the oil introduced, in a position which makes the ostium the uppermost point of the cavity. A twenty c.c. syringe serves to supply a mixture of iodized oil and liquid petrolatum (iodized oil, one part; petrolatum, two parts). The posterior nares may be watched through the nasopharyngoscope. At the moment of filling, the operator may experience a sudden increase in resistance, followed by the observance of a stream of oil, entering the nasal fossa. The volume used should agree quite closely with the subsequent calculation based on the roentgenograms.

It is of importance to keep the head constantly in the lateral position until all films are made. This means that, during their exposure, the postero-anterior films are held in a vertical plane by a special support. Pending this development, in the cases shown the lateral projection was made first. The head was then allowed to turn into the usual attitude for the taking of stero films in the chin-nose position upon a horizontal table. Occasional loss of some oil occurred.

A penetration is desirable which produces in the film some detail, within the shadow cast by the oil, for the added information which the stero thereby gives. Instead of increasing the exposure, it is convenient to dilute the iodibed oil, as above mentioned. It was found, after various experiments, that the use of the one-in-three dilution differentiated thin layers from masses and, in the stereoscope, permitted the sinus to be seen in three dimensions.

Except when there are abnormalities in the region of the os maxillaris, the sinus frees itself of oil spontaneously in a few minutes. The use of petrolatum with the oil may delay the emptying and necessitate an irrigation adapted to its removal.

INTERPRETATION OF RESULTS

The first observation upon the roentgenogram is directed at detection of failure to keep the cavity filled. The anterior border in lateral views and the orbital surface in the postero-anterior exposure may be sites of error. In two cases it was necessary to repeat the examination.

Three densities determine the markings in roentgenography of the face, namely bone, soft tissue, and air. All lines seen are derived, after the fashion of cross-sections, from whatever planes or surfaces separate these densities. In the skeleton a sinus has only one outline, while in the living an air-containing sinus has at least two, Fig. 1, I, a,b. The line a is the more distinct: b is too indistinct for diagnostic purposes in most instances, except with the most delicately refined technic, developed along with the

use of the Bucky diaphragm. In the normal a practically coincides with b. But if an

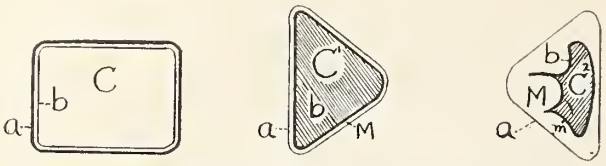


Fig. 1. Roentgenography of the Maxillary Sinus (Diagrammatic).

I—unfilled normal, lateral.
II—opaque injection, postero-anterior.
III—polypi of Fig. 4, postero-anterior.

a—bone, b—free surface of cavity, M—non-osseous wall, m—thickness of wall, C^1, C^2,—opaque medium.

opaque injection has replaced the air, b is more distinct than a, Fig. 1, II. The film-like interval M, representing muco-periosteum, widens in disease into the most remarkable shapes. m^1 represents its thickness at any point. The middle third of the posterior wall in lateral views and of the facial wall (its outer line) in posterior-anterior projections are the most representative locations for measuring m, because they avoid the regions of acute angles which readily become filled to great depth.



Fig. 2. Left antrum, lateral; 14% filling defect; Chronic hyperplastic maxillary sinusitis, early.

In large filling defects the measurement of this linear thickness is less significant than that of the per cent volume occupied by pathological material. The volumes to be considered are the cavity in bone, the cavity as filled, and the filling defect. The lack of similarity to any geometrical figure frustrates any calculation based on linear measurements. However, clay models made to match the film outlines in the required projections should have the approximate volume, if in harmony with the usual shapes of this sinus and the information derived from the stereo films. For each clay model the volume was determined from its weight and its specific gravity. The results are completely expressed by the volume in cubic centimeters of the bony cavity, and by the percentage of filling defect.

SUPPURATIVE MAXILLARY SINUSITIS

In four of the cases, the sinuses were studied in what was believed to be the second to fourth week of acute suppuration. The thickening of the muco-periosteum as recorded on the films averaged 7mm., and in one case this thickening was accompanied by negative washings. In ten less recent cases the futility of further irrigation or of any non-surgical treatment was indicated by the thickening demonstrated. Pyogenic infections of longer duration gave 11 mm. in one, 4 mm. in another, irregular thickening composed of granulation tissue in a third patient, whose minimum was 5 mm., and gave 9 mm. thickness in a case of dental origin. In the last three of these cases, the surgical

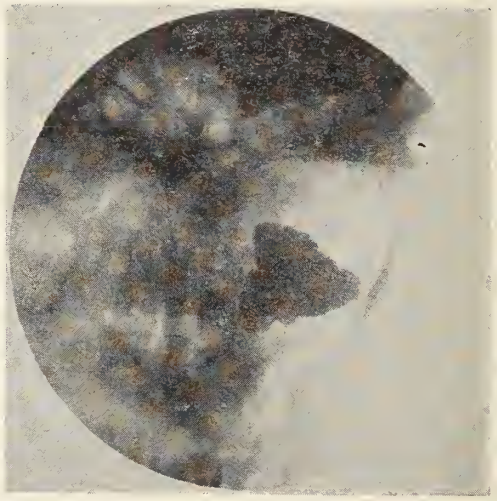


Fig. 3. The same, postero-anterior; undiluted iodized oil.

relief was planned in accordance with the amount of thickening discovered, viz.,—a Faulkner-Wagner intranasal, a modified Canfield-Skillern, and a Caldwell-Luc operation, respectively. In the second of these the granulation masses were found in the field of exposure of the sinus, and there was a general verification of the iodized oil findings in the cases. There was prompt return of the sinuses to normal, and it seemed that the opaque injection had been of great assistance in the selection of the minimum surgical procedure which would be effective. It appears that when there is no hyperplastic tendency any program of continuous aeration and drainage relieves. The injection is of value in all suppurative cases in which thickening from granulations on the floor may lead to closure of the inferior meatus drainage opening. There is without doubt a figure for the filling defect, probably

60 per cent, which experience will show is critical for the likelihood of recovery under conservative surgical treatment.

CHRONIC HYPERPLASTIC MAXILLARY SINUSITIS

It is in chronic hyperplastic maxillary sinusitis that the most surprising variations occur, in cases which would ordinarily be classed together. One finds all variations from a uniform 3 mm. thickening sufficient to obstruct the os maxillaris to complete obliteration of the cavity. In one case a thin film of oil retained a place posterior to a solitary polyp which filled the sinus but produced no appearance in the nose. In another case there was a central potential space at the point of confluence of polypi and mucous cysts.

Among hyperplastic cases at an earlier stage, a case showing a high filling defect is illustrated in Fig. 4. Negative washings



Fig. 4. Right antrum, hyperplastic, advanced; 80% filling defect; polypi. For diagram see Fig. 1, III.

and a clear transillumination had made appreciation of this chronic lesion impossible without the opaque injection. The sinus was moderately clouded in the original roentgenogram. In such cases the diagnostic methods of Mithoefer, using a canine fossa window for palpation, and of Ellis, placing the Berlin nasopharyngoscope through an intranasal opening, are efficient, but less truly pre-operative. A pre-operative diagnosis in detail gives knowledge of the amount of tissue to be totally removed. It seems usual to find among the polypi one or two cubic centimeters of gelatinous discharge, resisting irrigation. In the patient represented by Fig. 6 this did not prevent the outlining of several polypi.

Of fourteen cases which were of the hyperplastic type without pus, nine had large filling defects, averaging 78 per cent. On all other evidence each of these sinuses appeared suitable for an intranasal operation. Six were operated upon radically and the pre-operative diagnosis was confirmed by a



Fig. 5. Chronic suppurative maxillary sinusitis, right antrum. Arrow indicates heaped granulations deforming squarish shadow.

modified Caldwell-Luc method. In two hyperplastic cases with slight filling defects an intranasal method was used. The maximum uniform filling defect capable of resolution without curettage is probably under 40 per cent.

Among the post-operative cases presenting themselves for examination the most interesting is that of Mr. W., aged 76 years, the lateral view of the right antrum being shown in Fig. 5. There is a rod-like mass believed to be a granulation mass of alveolar origin following extraction of the second premolar tooth. Zinc ionization treatment was advised, the purulent discharge containing streptococcus viridans. Three post-



Fig. 6. Advanced hyperplastic sinusitis; 80% filling defect; polypi (three indicated by arrows)

operative cases and five for examination only were pronounced free from pathological process.

FORECAST OF POSSIBLE USEFULNESS

The experience gained in these cases is not sufficient to permit one to draw a contrast between this and other diagnostic methods. In difficult cases error is prevented only by making use of all sources of information. Here the opaque injection supplements on the one hand the diagnostic irrigation and on the other the roentgenogram.

Knowledge of the persisting filling defect is immediately useful in chronic hyperplastic sinusitis. In the acute cases of disease we might appreciate mural findings if we knew how to apply them, for example in the nonsurgical measures. The results obtained in this series of cases indicate: (1) that one may demonstrate that an antrum is without abnormality; (2) that, in acute inflammation, one may throw light on the type of pathological process; (3) that, in more advanced cases, one may obtain indications for surgical treatment, e.g. continuation of the irrigation; (4) that, in chronic hyperplastic cases, one may show what must be accomplished in the operation; (5) that invasion of the sinus by dental cysts of the maxilla and other pathological processes may be diagnosed.

SUMMARY

The maxillary sinus may be readily filled for roentgenographic study by opaque injection following the diagnostic irrigation. Iodized oil, preferably diluted, is safe, and is without the disagreeable qualities of argyrol, but may be replaced by other media developed for certain cases. Filling should be complete and loss of oil should be prevented. Filling defects may be calculated and employed in the pathology and therapeutics of the sinus. The normal sinus and one examined following a successful operation have no appreciable filling defect.

CONCLUSION

Injection of the upper respiratory spaces with roentgenographically opaque liquid, for which the term "opaque injection" is suggested, has such merits that it deserves development for frequent use in office practice. It is a safe procedure, as applied to the maxillary sinus, is always of interest in cases for which it is suitable, and is often of the highest value.

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INTRACTABLE BLADDER DISTURBANCE IN WOMEN

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Bladder disturbance is such a common factor in the ills of women that one could almost paraphrase, with some degree of certainty, Lincoln's famous saying, in that most women have cystitis sometime; some have it all the time, but not all women have it all the time. According to Stevens and Arthurs (1) "practically all women suffer from bladder disturbance sometime during their lifetime."

Bladder disturbance is of such variable type and degree that the successful treatment thereof depends upon the accuracy with which the etiological factors are diagnosed, and the judicial application of the therapeutics best adapted to that particular case, thus it can be readily seen that no generalized form of treatment can be prescribed at random with the hope of getting a prompt and lasting cure. Unfortunately in a large per cent of cases, very little importance is attached to "bladder trouble" by some physicians until the case becomes intractable, when recommendations are made to consult a specialist—usually at a time when the disease has attained such a stubborn condition that it demands the utmost skill and patience of the physician, and the patience and complete cooperation of the patient, to bring the diseased condition under control and stimulate the pathological tissues to assume normal vitality.

In order to establish the best results in the treatment of intractable types of vesical pathology, the etiology must be definitely determined by a thorough urological study, after which specific therapusis prescribed accordingly.

Inasmuch as the female bladder is anatomically located in the immediate proximity of the uterus and its adnexia, it is prone to physiological and pathological influences not found in the male—all of which must be considered in the etiology of cystitis in women. Furthermore, although the bladder is seldom involved primarily by pathologic processes other than ulcers, tumors, foreign bodies, and congenital diverticula, it is affected directly or indirectly by all manner of kidney, ureteral and urethral conditions as well as those outside of the uropoietic tract.

The etiological classification of bladder disturbance in the female may be conveniently grouped as follows:

(1) Intra-Vesicular.
  1. Ulcerations.
    (a) Non-specific
    (b) Tubercular
    (c) Elusive
    (d) Linear Ulcers
    (e) Fissures

2. Infections.
   (a) Colon Bacillus
   (b) Tuberculosis
   (c) Neisserian
   (d) Luetic
   (e) Gen. Infections.
   Streptococci
   Staphylococci, Etc.
3. Foreign Bodies.
4. Sacculations.
   (a) Diverticula
   (b) Cystocele
   (c) Paretic bladder
5. New Growths.
   (a) Polypi
   (b) Benign Papillomata
   (c) Carcinoma
6. Trauma.
   (a) Foreign bodies introduced into bladder
   (b) Faulty catheterization
   (c) Instrumentation
7. Chemical.

(2) Extra-Vesicular.
1. Inflammatory processes of the uterus and adnexia.
2. Cellulitis
3. Growths-making pressure on bladder or causing retractions of bladder wall.
4. Peritonitis
5. Appendicitis
6. Colitis
7. Ulcer in ano.

(3) Supra-Vesicular.
1. Pyelitis
2. Nephroptosis
3. Hydronephrosis
4. Policystic kidney
5. Pyonephrosis
6. Tuberculosis
7. Calculi
8. New Growths

(4) Infra-Vesicular.
1. Strictures
2. Ulcers
3. Fissures
4. New Growths
   (a) Caruncle
   (b) Urethral polypi
   (c) Benign tumors
   (d) Carcinoma

(5) Systemic or general diseases.
1. Diabetes-mellitus and insipidus
2. Urinary Dyscrasies-Oxaluria, Cystinuria, etc.
3. Neurosis
   (a) Physiological - affected reflexly from some remote pathology as for example: pruritis ani, diarrhea, etc.
   (b) Pathological
      a. Hysteria
      b. Tabes
      c. Syringomyelia
      d. Transverse myelitis

One of the most intractable forms of inflammation of the bladder is that associated with multiple ulcerations, be they ever so superficial, when they have attained a certain degree of chronicity. In such cases there may be an extensive inflammation and infiltration of the deeper tissues and lymphatic involvement, producing in the trigone a traumatic granulomata, surrounded by an areola of deep congestion, which is commonly seen by the cystoscopist. Oftimes this condition is prone to be very stubborn and it is only after some heroic measure that relief is obtained. We have found that, besides the usual medical treatment, diathermy has proven to be a valuable adjunct in the treatment of this condition.

One of the most persistent etiological factors in causing incalcitrant cystitis and probably one of the easiest to overlook in the examination, is the socalled elusive, submucous or Hunner ulcer. In 1914 Hunner (2) presented his report of eight cases of a rare type of bladder ulcer in women. Since then some cases have been reported by various urologists. Thomas is of the opinion that the socalled Hunner's ulcer "is the least important part of pathology. It should be called chronic interstitial ulcerative cystitis."

The ulcer is usually found in the vertex of the bladder and rarely extends down the sides to the trigone. It is variable as to size and usually presents a clean, bright red, sharply defined ulcer, surrounded by an area of deeper congestion of the submucosa. The blood vessels may stand out prominently; of network appearance, and terminate abruptly in the mucosa. When the ulcer is touched with the cystoscope or catheter it will bleed readily and the patient complains of a sharp pain.

The ulcer, as a rule, is very persistent and does not respond readily to medication, hence, usually calls for more radical measures, such as surgical, extirpation or destruction by means of electricity. We have used fulguration in six of our cases and found it quite satisfactory. Four of the cases were apparently cured; one may be classed as fair, whereas the other has not been heard from since. One patient classed as having obtained fair results had complete relief for a period of two years after having had the fulguration treatment. Upon her return cystoscopy showed another ulcer had developed; this was fulgurated, after which she was free from pain for five months, when there was another repetition of her bladder symptomology—the ulcer had again appeared and necessitated fulguration. Since then she has had intermittent attacks of cystitis. Due to the difficulty often experienced in finding elusive ulcers, suspicious area, together with the bladder symptoms, may lead one to diagnose such a lesion as present when in reality it is not. As an illustration, one of our patients, Miss J., gave a history of frequency, dysuria, tenesmus and painful distention. After visiting two well known clinics without relief she went to another clinic where, after careful urological study, she was told she had an elusive ulcer in the bladder and advised to have it removed by surgery. The operation failed to disclose any ulcer, and got no relief from her distress. After convalescence she came to us. Cystoscopic examination

showed a strictured supernumerary left ureter which apparently had not been observed in the former examination. She had also colon bacillus infection in all three renal pelves. Dilatation of the stricture, together with silver nitrate irrigations of the pelves gave prompt relief, but she left us before being entirely cured.

Herbst (3) has found that certain linear ulcers, or fissures, usually seen on the posterior wall of the bladder in women, but rarely in men, produce a severe type of frequent, painful and imperative urination, usually accompanied by hematuria. He recommends diathermy as a means of destroying these lesions.

Tuberculosis of the bladder may be the cause of a circumscribed stubborn cystitis, especially when tubercular ulcerations are present. Inasmuch as the source of vesicular tuberculosis is usually found in the kidney, the bladder condition will generally persist regardless of treatment until the offending kidney is removed. There has been much written in French literature concerning the use of diathermy in the treatment of bladder tuberculosis. Paris (4) reports ten cases cured by diathermy and nine much improved among 21 cases of vesicular tuberculosis, and in 17 cases persisting after nephrectomy the interval since nephrectomy varied from six months to six years. The proportionate cures were largest in the ulcerative form. The diathermic application was made without direct contact with the tissues in all but two cases, where electrocoagulation was preferred. By curing these post-operative cases cystitis was prevented. Corbus and O'Connor, too, I believe, have obtained good results from the use of diathermy in bladder tuberculosis. We have been using diathermy, together with the quartz light and artificial sunlight (a combination of arc light, Finsen and Alpine lights) as well as the use of Calcium Chloride in some of our cases of renal tuberculosis. Some of the cases responded fairly well to this form of treatment, whereas others obtain less favorable results. One of our patients, Mr. H., a barber, contracted tuberculosis while in military service. A pronounced case of cystitis developed together with a loss of weight, anorexia and afternoon temperature. The bladder disturbance became so annoying that it was with difficulty he could follow his vocation. Cystoscopy revealed a tubercular bladder. Laboratory test, both showed tuberculous infection, first in the right kidney, and later the left. He was put on the diathermy, alpine light and Calcium Chloride regimen for three months. During this time his general health gradually improved but his bladder symptomology apparently did not respond as well as anticipated. About three months ago he voluntarily adopted the raw food vegetarian dietary, together with taking the artificial sunlight baths. He states that three weeks after taking this form of treatment, his cystitis cleared entirely up and he has been comparatively free from distress since and has felt the best he has for years. Mrs. R., another patient of ours, who also had renal and vesicular tuberculosis, was put on the same treatment, exclusive of the diet, with very little improvement after three months treatment. She left us and went elsewhere and had a nephrectomy. Since then we have lost all trace of her.

Of the infections the colon bacillus is the most common offender of the urinary tract in women. Approximately 70 per cent of cystitis in women is due to the colon bacillus. As a rule it is slightly virulent, however, if there be but a slight bladder lesion, as for instance, fissures or punctate ulceration, permitting it to take root in, assisted by retention, it is apt to produce inflammatory processes of the mose severe intensity, and produce distress without manifest bladder pathology. In case of gonorrheal infection of the bladder, the co-existing Neisserien infection of the genitalia must be cleaned up before a successful treatment of the bladder disturbance can be obtained for it is evident that with an infiltration of the bladder wall, it will more or less persist while the vaginal or uterine infection is present. Cystitis maintained by a syphilitic efflorescence can be cured only when anti-luetic treatment is given. Farago (5) mentions two cases of syphilis of the bladder wherein the symptoms resembled those of nervous pollakiuria. The cystoscopic picture was that of numerous minute grayish nodules scattered over the bladder mucosa, each surrounded by a red halo of congestion, but without ulceration. Both cases cleared up promptly by anti-luetic treatment.

As to cystitis in the female bladder by foreign bodies, we have not as yet had any such cases, although a number of cases of this type are mentioned in literature. Stevens and Arthurs (1) claim that "foreign bodies of all descriptions from a crucifix to a china doll have been found in the female bladder; but the common black wire hair pin is most frequently found." This, of course, was in the pre-bobbed hair days. Cary (6) says that "a foreign body in the bladder, after cystiits has developed, will maintain this pathologic condition in spite of all therapeutic measures until the extraneous body is removed." The chief reason wherein foreign bodies produce and maintain cystitis is that traumatization of the tissues is apt to produce a pathologic lesion (fissure, ulcer, etc.) difficult to heal, thus preventing the inflamed mucosa returning to normal.

Diverticula of the bladder wall, if so constructed as to favor stagnation, hence infection may be a definite etiological condition favoring bladder disturbance. However, many of the diverticular apparently cause little or no apparent bladder disturbance. The same can be said of cystocele and some sacculations of the

bladder wall, but a paretic bladder, because of its trophic disturbance, is always prone to infection.

The new growths commonly found in the bladder are polyps, benign papillomas and carcinoma, the former being most frequently seen in the female bladder and usually located at the sphincter neck. Bladder tumors, as a rule, do not produce much bladder symptomology unless they involve the sphincter or ureteral ora. Smith (7) asserts that "all tumors of the bladder, (barring some varieties as fibromas), are potentially, if not actually, malignant; that early diagnosis by means of the cystoscope is essential as the first requisite for successful treatment." Tumors of all knids demand thorough radial treatment such as diathermy or surgery, depending upon the type and extent of the tumor mass. Young and Scott (8) state that with the use of fulguration, radium, the electrocautery and careful radical resection, about 95 per cent of the benign, 75 per cent of the malignant papillomata; about 50 per cent papillory carcinoma and nearly 25 per cent of the infiltrating carcinoma are probably curable. Corbus says in his discussion of Dr. Scholl's paper on bladder tumors (9) : "I am absolutely opposed to the excision of any tumors, whether potentially benign or malignant, for diagnosis or for treatment. Diathermy is the greatest force that has been added to medicine or surgery in recent years. Two diseased conditions are amenable to heat treatment; infections of gonorrheal origin and cancer."

Traumatization of the bladder by foreign bodies of various kinds for purposes of masturbation or abortion, or even careless catheterization, will often be a factor in producing a stubborn case of cystitis which sometimes calls for an intensive protracted form of treatment.

Various drugs eliminated by the kidney will sometimes be the hidden cause of a persistent low grade cystitis. We have had several cases where the bladder irritibility was traced to a long continued use of Urotropin, and which cleared up when the drug was discontinued. Turpentine sometimes given in enemas may also cause bladder irritation. We had one case where the bladder disturbance was apparently due to the use of cantharidis for the treatment of frigidity.

Among the extra-vesicular causes of bladder disturbance, exclusive of pregnancy, are pelvic inflammatory processes such as salpingitis, parametritis, cellulitis, appendicitis, peritonitis, large tumors both intra and extra uterine, pressing on the bladder or causing retraction, and inflammatory exudates. Pus tubes or parametric exudates becoming attached to the bladder wall will cause cystitis, excontiguo, and the cystitis will remain until removal, or drainage of the infectuous accumulations.

Persistent bladder disturbance may also be caused by a severe case of colitis, (bacillary or parasitic), or by painful internal hemorrhoids, ulcer in ano, or even anal fissures, which may fail to respond to treatment until the associate pathology is taken care of. In five cases mentioned by Lynch (10) the chief etiological factor was rectal—anal fissures were found in each case and every one of the five cases promptly cleared up when the fissures were dilated and cauterized. Lynch explains this phenomenen through the medium of the hypogastric nerve, which supplies both the bladder neck and internal anal sphincter. He has shown that two marked reflex contractions take place through the meseneric ganglia upon stimulation of the central end of the hypogastric nerve, which are those of the sphincter and of the trigonal region of the bladder. Stimulation of the hypogastric produces contractions of the internal sphincter muscle of the anus, as well as the bladder sphincter and muscles of the trigonal region. This can be duplicated by the injection of epinephrin. A stimulation of the pelvic plexes of the sympathetic nervous system also produced a contraction of the bladder fundus and of the colon. This can be duplicated by the injection of Acetylocholin. Thus, we can readily see the importance of making a complete investigation of all related organs in order to ascertain the source of the bladder disturbance.

Kidney ureteral and urethral conditions are often responsible for bladder irritation, in the absence of demonstrable vesical involvement. Stevens and Arthurs (1) state that of 102 cases of cystitis the etiological factors were found above the bladder in 55 cases; below the bladder in 37 cases; above and below in 6 cases; confined to the bladder in 3 cases and outside of the urinary tract in 1 case.

Pyelitis is a much more common cause of cystitis in the female bladder than is generally conceded. It easily ranks second to urethritis and trigonitis. Nephroptosis also is a factor in producing cystitis, and, like ureteral stricture, is apt to be easily overlooked. Renal tuberculosis and pyonephrosis may produce persistent cystitis which often yields only after the diseased kidney is removed, or the condition cleared up by intra-renal pelvic medication via the ureteral catheter. Hydronephrosis must also be considered as well as calculi, especially ureteral. In less common cases papillary growths in the renal pelvis or ureter may be a causative factor in producing disturbance of the bladder.

Hunner (11) and others have called attention to the frequency with which ureteral strictures are responsible for bladder disturbances in women. Stevens and Arthurs state that ureteral strictures occurred in 29.7 per cent of their series. Strictures in the urethra are the most common infra-vesicular cause of bladder disturbances in women. In calibration of the

urethras of 152 patients, Stevens and Arthurs found that 67 cases, or 43.5 per cent, showed urethral strictures. We have not had anywhere near this percentage in the cases that came under our observation.

A common cause of stubborn bladder disturbance in the female is the urethral caruncle. Symptoms of cystitis will usually persist, regardless of treatment, until the caruncle is destroyed by electrocoagulation or removed surgically.

Urethral fissures and ulcers are frequent causes of persistent bladder disturbance and must be taken care of before the disturbance will clear up.

Diabetes, both mellitous and insipidus, cause persistent bladder disturbances, as is the case with oxaluria and also cystinuria—all of which demand dietetic and other measures.

Various neuroses produce vesicular disturbance either direct or reflexly or both. Campbell (12) says that "neuropathic vesicular disturbances come under three general classes, depending on whether they are due to (a) an irritation, (b) sphincter spasm, (c) sphincter relaxation (paralysis). During the course of a disease all three conditions may develop in this order. The earliest manifestation of organic never disease (tabes, syringomelia, multiple sclerosis, transverse myelitis) may be vesical. Bladder necy hypersthesia is present. The recognized symptoms of frequency, hesitancy and terminal dribbling succeed. Sphincter spasm (external) is not common in the earlier forms of cord lesion. If marked, complete retention with incontinence of overflow ensues. If moderate, there is a partial retention back pressure causing fine bladder trabeculations. Paralysis of the internal sphincter vary from a mild relaxation to total paresis is seen in such condition as late tabes syringomyelia and multiple sclerosis. Neurological Syndromes in which bladder disturbances are a common accompaniment are: cerebro-spinal syphilis, either congenital or acquired, usually in the form of tabes; cord tumors, status postopolocticus, exophthalmic, goiter, paralysis, agitans, multiple and transverse sclerosis, syringomyelia, tubercular meningitis, the tonic neuritides (scarletina, typhoid, diphtheria, lead alcohol, etc.), and spina bifida."

According to Campbell, 90 per cent of spinal cord lesions are of luetic origin and that the neutral relation between tabes and urinary disturbances (with subsequent infection) may be realized when we consider that three-fourths of tabetics have bladder symptoms and that autopsy shows that two-thirds die of secondary urinary tract infection.

Treatment in all neuropathic cases resolves itself into that of general toxicity regimen; specific anti-luetic, or other treatment, depending upon the type and urinary hygiene. Asepsis is imperative! Infection is easily acquired and becomes more or less persistent, because of trophic disturbances, hence great care in catheterization must be taken. Urinary antiseptics as hexylresorcinal or urotropin with Acid Sodium Phosphate are called for in those cases, usually with bladder irrigations, to prevent stagnation and aggravation of the infection. We have found cyanide of mercury 1-5000-1-1000 very satisfactory, also Silver Nitrate, 1-5000 to1-2000. Some prefer the use of Silver Nitrate solution because of the tonic effect of the silver on the bladder wall.

In conclusion, the question of successful treatment of intractable forms of bladder disturbance is dependent upon a careful urologic study of all possible etiological factors liable to produce the cystitis and adaptation of a suitable therapy, judiciously applied, as best suited for taking care of the particular clinical and pathological complex under consideration.

SUMMARY

1. Bladder disturbance is common to most women sometimes during their lifetime.

2. The etiological factors may be supra-intra-infra-or extra-vesicular, or systemic, all of which must be carefully determined in order to successfully treat the resultant cystitis.

3. All cases of vesicular disturbances are worthy of a thorough cystoscopic study in order to determine the possible etiology.

4. Persistent bladder irritability may be the result of certain drugs eliminated by the kidney.

5. Excessive use of Urotropin may produce bladder disturbance.

6. Bladder disturbance may be due to diabetes, or other systemic diseases.

7. Oxaluria Cystinuria, etc., may cause bladder trouble.

8. Vesicular disturbance is a common accompaniment of some of the neuroses.

9. Diathermy is an invaluable means of treating pathological processes in the bladder.

10. A modification of therapy best suited for the clinical and pathological complex in cystitis should be instituted.

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PUBLIC HEALTH ACTIVITIES

Edited By

MICHIGAN DEPARTMENT OF HEALTH

BREAST FEEDING SURVEY IN SEVEN COUNTIES IN MICHIGAN

"There is no question that the character of feeding during the first year of life is the main factor in the health destiny of the baby. Although prenatal and natal conditions may largely account for neonatal deaths, we must look to difficulties in feeding as the underlying cause of the disorders which result in so many deaths during the later months. The early establishment of breast feeding is of paramount importance. . . . There is no real substitute for mother's milk."*

Realizing the need of education of mothers as to the importance of breast feeding and its ecect on infant mortality and morbidity, the Michigan Department of Health has conducted a series of breast feeding campaigns in seven counties in Michigan, with a total of 1329 mothers visited.

The death in Michigan in 1925 of 1742 children under two years of age from diarrhea and enteritis alone is sufficient incentive for such an educational campaign, since the incidence of diarrhea and enteritis is much higher in artificially fed than in breast fed babies. The Bureau of Child Hygiene of New York City Department of Health several years ago made a study of deaths from diarrhea and enteritis and found that "17 per cent were exclusively breast fed and 83 per cent artificially fed in whole or in part," (**) proving the much greater resistance to this one disease alone on the part of breast fed babies, while increased resistance to disease of every kind among breast fed babies is a well recognized fact.

The survey was conducted by nurses in the employ of the Michigan Department of Health. The nurse assigned to a certain county would first visit the physicians in the county and secure their approval of the survey, and next would visit the county and township clerks and get the names of the parents of all infants born in the county within the past year and would then start on her home visits. She would first call on mothers of new born babies so as to get to them early the information about the value of breast feeding and would instruct the mothers as to their own diet and the care of the baby. In many instances she would be questioned about older children in the family, as to diet and hygiene. She was supplied with literature, including diet lists for expectant and nursing mothers, breast feeding schedules, diet lists for older children, recipe books and dodgers on the care of children. This literature was particularly acceptable in rural districts where health education is not as available as in urban districts. The following card was used in obtaining information:

BREAST FEEDING SURVEY

Name .....
Date of birth .....
Address .....
Nationality of Mother .....
Occupation of Father .....
How long breast fed .....
Why weaned .....
What is being fed .....
Home conditions .....
Remarks .....
.....
.....

In future campaigns, information will also be obtained as to the age of the mother, diet of the mother during pregnancy and lactation (whether good, fair or poor, and what it lacks), the physical condition of the mother, and whether she was attended by a physician or a midwife, as these factors all have a direct bearing on the ability of the mother to nurse her baby.

The following table shows the result of this survey by age groups:

Age Groups	Birth to 1 Mo.	Mos. 1-3	Mos. 3-6	Mos. 6-9	Mos. 9-12	Over 1 Year	Total
No. babies surveyed (by age groups)	102	405	431	194	92	105	1329
No. babies never breast fed	4	21	32	19	7	10	93
No. babies still getting breast milk	93	341	320	129	34	13	930
No. babies breast fed less than 1 month	5	34	45	14	14	7	119
No. babies breast fed 1-3 months		9	29	12	16	20	86
No. babies breast fed 3-6 months			5	13	5	5	28
No. babies breast fed 6-9 months				7	6	12	25
No. babies breast fed 9-12 months					10	27	37
No. babies breast fed over 1 year (but weaned at time of survey)						11	11

*Abt's Pediatrics, Vol. II, P. 36.

**Child Hygiene, by S. Josephine Baker, P. 211.

Of the 1329 babies surveyed, 938, or 70 per cent, were under six months of age. This gave the advantage of having this large group of mothers instructed in the benefits of breast feeding and in infant care while the babies were still very young. Of these 938, 754 were still breast fed, 127 were weaned and 57 were never breast fed.

Of the 1329 surveyed, 93 were never breast fed, 930 were still breast fed, while the balance were weaned or on artificial feeding. A group of 24 were breast fed more than one year, and 11 of these were weaned at the time of the survey. Of the 930 breast fed babies, 754, or 81 per cent, were wholly breast fed and 176, or 19 per cent, were partially breast fed, an encouraging proportion of wholly breast fed babies. Of those who were weaned or partially breast fed, 331 were receiving cow's milk and 129 were on patent baby foods, showing that mothers are awakening to the value of cow's milk where breast milk is not available. But much education along these lines is still needed, as the simplicity of the use of some of the patent foods over the preparation of modified cow's milk, and the fact that the patent foods beep better in hot weather than cow's milk, are strong arguments among mothers in favor of their use.

The following table shows the reasons given by mothers for not nursing their babies:

Reasons for Not Nursing Baby	Never Breast Fed	Less Than 1 Mo.	Months 1-3	Months 3-6	Months 6-9	Months 9-12	Total
Insufficient amount of milk		58	43	17	2		120
Mother ill	19	20	15	6	2		62
Milk did not agree with baby		15	13	5			33
No breast milk at all	28						28
Baby ill	7	5	5				17
Defective breasts	4	8	4				16
Milk of not good quality		4	2	6			12
Mother died	6						6
Mother pregnant			3	2	3	4	12
Baby would not take breast	3	2					5
Mother did not have time		1	3				4
Mother had to work out	3						3
Adopted baby	2	1					3
Mother would not nurse baby	2						2

As will be seen by this table, the most frequent reason was insufficient amount of milk, 120 mothers giving this as a reason. When we consider that many of these 120 mothers could have nursed their babies had they been instructed during the prenatal period as to the effect of diet on lactation, both during the prenatal and nursing period, this group has an added significance. Also, in cases where even proper diet for the mothers did not result in sufficient milk for the baby, had the mothers been instructed as to the value of breast milk they would in many cases, have continued breast feeding with complemental feeding of modified cow's milk. Adequate prenatal care with proper instruction as to diet would have reduced this group materially.

The reason next in frequency was that the mother was ill. While the question of illness of the mother was not always followed up in detail, overwork of the mother and frequent pregnancies were mentioned as having a possible bearing on many of the cases. Also lack of proper prenatal, natal or postnatal care was mentioned as a factor in some cases where the mother was ill.

That the breast milk did not agree with the baby was the third reason given, and we know that the actual number of cases where breast milk does not agree with a baby is small indeed. Faulty diet of the mother causing digestive disturbance in the baby, or deficient diet resulting in insufficient amount of breast milk and fretfulness and failure to gain in weight, were probably the real reasons for this group not receiving breast milk, conditions which could easily be improved with the co-operation of the mother. Other reasons were given as shown by the table, but in these cases, as in the above, breast feeding could have been carried on had the mother been properly instructed.

The following table shows the nationality of the mothers interviewed. American mothers predominated, and next in order came French, Finnish, English, Polish, Swedish and Italian. The Finnish mothers nursed their babies longest as 12 of them were breast fed more than one year. Among the babies of American mothers, the largest group came in the first to third month age period, and most of the American mothers weaned their babies by the end of the sixth to ninth month period. Proportionately, the French mothers comprised the largest group who never nursed their babies.

Nationality of Mother	Never Breast Fed	Less Than 1 Month	Months 1-3	Months 3-6	Months 6-9	Months 9-12	Over 1 Year	Total
American	56	148	290	235	104	20	5	858
French	11	18	29	26	7	6	2	99
Finnish	4	11	21	9	10	16	12	83
English	4	8	12	11	3	11	1	50
Polish	2	1	7	16	8	3	1	38
Swedish	1	5	10	8	4	4		32
German	2	5	6	11	2			26
Italian	1	1	6	3	4	2	3	20
Slavic	1	3	7	3	2	1		17
Irish	1	4	5	2		2		14
Austrian	3		4	2	1	3		13
Miscellaneous	7	8	30	22	9	3		79

As to home conditions, 17.4 per cent were poor, 28.6 per cent fair, and 43.6 per cent good, and in 10.4 per cent the home conditions were not given.

In the course of the survey, many interesting cases were discovered, and the nurses were able to correct some very erroneous ideas and to have valuable contacts with mothers at a time when they were most needed. One history obtained was that of a baby given away by the mother to a middle aged couple with no idea as to infant care. The baby, which was in the three to six month period, was being given bananas to control "chin drop." The baby was kept clean and the adopted mother was apparently grateful for suggestions from the nurse.

Another case was that of a baby one to three months old, breast fed. The baby was fussy and the mother, who was on a deficient diet, nursed it constantly. After talking with the nurse she promised to put the baby on schedule feeding and to improve her own diet.

A premature baby, weight 2¼ pounds, was unable to nurse because of weakness. The mother was taught breast expression and given demonstration of feeding the baby with a medicine dropper, and also as to general care of premature babies. The parents were living in an isolated district where medical advice was impossible, and were most grateful for help.

Of course, not all cases were responsive. Many mothers were self-sufficient and did not wish any suggestions. Especially was this true in the case of a number of illegitimate children discovered, most of whom were neglected and in poor condition, and not breast fed. However, the general response was very good and mothers appeared eager for definite information as to the effect of their own diet on their ability to nurse their babies and to appreciate the advantages of breast feeding when pointed out to them.

Encouraged by the results of this survey, the Michigan Department of Health plans to do more educational work of this type, in an effort to educate the mothers of the state to the far reaching effects of breast feeding on the present and future health of the baby.

NEW DIVISION LABORATORY TO BE ESTABLISHED

Before the first of September, the new Western Division of the Laboratory of the Michigan Department of Health will be organized and in operation in Grand Rapids.

Establishment of this extension laboratory was authorized by act of the 1925 Legislature. It will serve the western coast, making possible more prompt service to the physicians in that section of the state.

Personnel of the new laboratory will be taken from the present staff of the Lansing laboratory, thus making sure that exactly the same grade of service will be given. The same standards of accuracy and dependability that are maintained in the Lansing laboratory will be in force in the Grand Rapids division.

The reagents and culture media will be prepared and standardized in Lansing, so that the same methods will be applicable in both laboratories.

Plans are already well under way for the remodeling of the building which will house the new division.

DIPHTHERIA ANATOXIN

Dr. Maurice Lamy of Paris, visiting this country as a special student under a grant from the Rockefeller Foundation, spent several days recently at the Biological Plant of the Department. He reports that the French are not using toxin-antitoxin for immunization against diphtheria at all, but have given it up in favor of Ramon's anatoxin, often designated in this country as the toxoid preparation. The toxoid preparations precede Ramon's work, but it is perhaps preferable to distinguish between toxoid, a theoretical entity based on Ehrlich's hypothesis, and anatoxin, an atoxic product prepared by a specially defined technic. This material has been under investigation in this country since the announcement by Ramon several years ago. Canadian laboratories have put it on the market, but the tendency in the States has been to be quite conservative.

The Michigan Department of Health has prepared some small lots of the material for experimental use, involving some points which it is believed have not been tried. Doctor Lamy kindly offered to secure from Dr. Ramon some of the official French anatoxin for our use in experimental comparative immunization in Michigan. It is prob-

ably well to take a conservative attitude in such matters, especially since we have Toxin-Antitoxin the results of which have been quite well tested, for only time can prove the duration and efficiency of immunity produced by new biological products, and the possibilities of undesirable reactions.

BOVINE INFECTION TRANSMISSIBLE TO MAN

Since 1904 when the British Commission established the cause of undulent fever to be an organism ingested in raw goat's milk, sporadic cases of malta fever have been recognized throughout the United States. As outbreaks have been almost entirely limited to the tropical and subtropical regions, there has been little interest evinced in Michigan. But since the discovery of the close relationship of the bacterial organism, B. Melintensis found in goats' milk which causes malta fever in man and B. abortus found in cow's milk which causes contagious abortion in cattle, the question has been raised as to the possibility of B. abortus causing a disease in man similar to malta fever.

It is, however, only within the last two years that we have had any conclusive evidence on the subject. In 1924, Dr. Keefer[1] of Baltimore isolated an organism of the abortus group from the blood stream of a case with all the clinical aspects of malta fever. Keefer was uanble to find that the patient had had any goat's milk but did determine that he had been drinking raw cow's milk. Mr. Huddleson, bacteriologist, Michigan State College[2] recently reported two laboratory infections with the abortus group.

Recognizing the fact that many undiagnosed fevers might well be infections resulting from ingestion of B. abortus, the laboratory of the Michigan Department of Health changed their routine procedure in typhoid diagnosis to include the test for the specific agglutinins B. abortus on all negative serums submitted in the control of typhoid fever. To date about 2 per cent of the serums have shown agglutinins in titers sufficiently high to suggest the abortus group as the source of infection. We regret that the clinical history and the epidemiology of these cases are not available for publication.

1. Keefer: Johns Hopkins Hosp. Bull., 35:6 Jan. 7, 1924.
2. Huddleson: J.A.M.A. 86:943, March 27, 1926.

PREVALENCE OF DISEASE

April Report

Cases Reported

	March 1926	April 1926	April 1925	Average 5 years
Pneumonia	1,595	1,204	679	690
Tuberculosis	475	493	668	612
Typhoid Fever	35	18	38	57
Diphtheria	398	304	307	505
Whooping Cough	1,176	811	637	632
Scarlet Fever	1,779	1,396	1,605	1,186
Measles	8,269	6,526	1,039	2,051
Smallpox	30	28	93	333
Meningitis	11	11	9	15
Poliomyelitis	3	2	4	3
Syphilis	1,214	1,352	1,362	960
Gonorrhea	711	853	773	745
Chancroid	15	12	6	12

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health

April, 1926

	+	—	+—	Total
Throat Swabs for Diphtheria				1364
Diagnosis	33	489		
Release	131	250		
Carrier	7	423		
Virulence Tests	7	24		
Throat Swabs for Hemolytic Streptococci				814
Diagnosis	249	135		
Carrier	103	327		
Throat Swabs for Vincent's	20	499		519
Syphilis				6360
Wassermann	13	32	6	
Kahn	1167	5041	100	
Darkfield		1		
Examination for Gonococci	195	1476		1671
B. Tuberculosis				600
Sputum	103	462		
Animal Inoculations	5	30		
Typhoid				107
Feces	7	49		
Blood Cultures		20		
Urine		2		
Widal	3	26		
Dysentery				44
Intestinal Parasites				21
Transudates and Exudates				182
Blood Examinations (not classified)				578
Urine Examinations (not classified)				421
Water and Sewage Examinations				681
Milk Examinations				64
Toxicological Examinations				4
Autogenous Vaccines				11
Supplementary Examinations				285
Unclassified Examinations (including Complement Fixation studies)				3791
Total for the Month				17517
Cumulative Total (fiscal year)				177304
Decrease over this month last year				5570
Outfits Mailed Out				13291
Media Manufactured, c.c.				586624
Diphtheria Antitoxin Distributed, units				12878000
Toxin Antitoxin Distributed, c.c.				37870
Typhoid Vaccine Distributed, c.c.				2188
Silver Nitrate Ampules Distributed				12756
Examinations Made by Houghton Laboratory				2180

American Medical Association Annual Meeting, Dallas, Texas, April 19-23, 1926

The American Medical Association is your national organization. It is an association that is directing medical activities of national and local scope that affects you personally. It is concerned with your welfare, your individual work, your relationship to the public and the activities of all national movements that affect you. By reason of this we feel that every member of our State Society should be familiar with the work that is being conducted by the American Medical Association. To impart that information we are making available the reports that were submitted at the recent annual meeting that was held in Dallas, Texas, on April 19-23. We are keenly eager that you familiarize yourself with the information they contain and so urge that you give time to their consideration.

GOVERNMENT

The following officers are charged with the duty of conducting the Association's activities:

President, Wendell C. Phillips, New York; Secretary and General Manager, Olin West, Chicago; Treasurer, Austin A. Hayden, Chicago; Editor, Morris Fishbein, Chicago; Business Manager, W. C. Braun, Chicago.

Full time Secretaries of Councils:

Medical Education and Hospitals, N. P. Colwell; Pharmacy and Chemistry, W. A. Puckner; Bureau of Legal Medicine, W. C. Woodward; Bureau of Health and Public Instruction, W. E. Dodson.

The Board of Trustees is composed of nine members with the President, President-Elect, Speaker, Secretary and Treasurer as ex-officio members. The Trustees meet three times during the year, while the Executive Committee of the Trustees meets monthly.

The House of Delegates is the legislative arm of the Association and is the highest governing authority. It is composed of members representing each constituent State Association. Each State Society is entitled to one delegate for every 750 members. Michigan is entitled to five delegates and was represented at the Dallac meeting by A. W. Hornbogen, Marquette; J. D. Brook, Grandville; George E. Frothingham, Detroit; C. F. Moll, Flint; C. S. Gorsline, Battle Creek.

The Speaker of the House of Delegates is F. C. Warnshuis, Grand Rapids, with A. H. Bunce of Atlanta, Ga., Vice Speaker.

REPORTS OF OFFICERS

REPORT OF SECRETARY

To the Members of the House of Delegates of the American Medical Association:

I have the honor to submit the following report for the year 1925-1926:

MEMBERSHIP

Because the Annual Session is held much earlier than usual, it is necessary to report the membership of the Association as of March 1, 1925. On that date the names of 91,792 members were on the official roll. On the corresponding date in 1925, the membership was 89,688. In December of each year, and in the early months of the succeeding year, many names are removed from membership records because of delinquencies in the payment of dues to the secretaries and treasurers of constituent state associations, only to be restored later on when these delinquencies have been discharged. Thus the work of those charged with the duty of keeping these records is greatly and unnecessarily added to, and thus the expense incurred by county societies, state associations and the American Medical Association is unnecessarily increased. The cost of removing and then restoring the name of a member who has carelessly failed to keep himself in good standing is not less than one dollar and is probably considerably more. When hundreds of members, through their failure to pay dues when due, make such procedure necessary, year after year, it is easy to see that their thoughtlessness is directly responsible for a very considerable expenditure that might easily be saved.

An accompanying table shows the number of members in each state, and presents other important facts relative to medical organizations throughout the country.

FELLOWSHIP

The names of 58,681 Fellows were enrolled on the roster, March 1, 1926. On the same date in 1925 there were 56,188 Fellows. The gradual increase in the number of Fellows, year by year, is encouraging, because it means the members of the Association are coming to take more interest in its affairs and more active participation in its work.

ORGANIZATION OF CONSTITUENT ASSOCIATIONS

State	No. Counties in state	No. Component Societies in State Assn.	No. Counties in State Not Organized		No. Physicians in State (9th Ed. Directory)	No. Members of State Associations		No. A. M. A. Fellows in State
			1925	1926		1925	1926	
Alabama	67	67	....	....	2,284	1,595	1,612	516
Arizona	14	11	3	3	378	222	222	175
Arkansas	75	66	10	10	2,212	1,249	1,180	487
California	58	40	16	16	8,363	3,436	4,203	3,260
Colorado	63	25	25	25	1,837	1,083	1,068	721
Connecticut	8	8	....	....	1,884	1,201	1,229	825
Delaware	3	3	....	....	256	155	148	91
Dist. Columbia	....	....	....	....	1,813	537	549	422
Florida	63	28	33	32	1,452	673	700	449
Georgia	161	104	57	57	3,122	1,671	1,784	804

Idaho	44	11	17	17	416	263	239	167
Illinois	102	95	4	4	10,743	7,107	7,020	5,199
Indiana	92	84	6	6	4,251	2,716	2,671	1,552
Iowa	99	97	....	....	3,378	2,374	2,362	1,568
Kansas	105	62	42	42	2,364	1,594	1,556	931
Kentucky	120	109	10	10	3,041	1,778	1,850	789
Louisiana	64	38	21	21	1,991	1,255	1,248	687
Maine	16	15	1	1	1,037	753	785	397
Maryland	23	21	....	....	2,313	1,264	1,259	814
Massachusetts	14	18	....	....	6,187	4,128	4,248	2,824
Michigan	83	55	7	7	4,837	3,051	2,983	1,832
Minnesota	87	38	8	8	2,823	2,087	2,053	1,353
Mississippi	82	37	9	9	1,702	947	976	336
Missouri	115	100	7	8	5,806	3,335	3,270	2,059
Montana	55	15	39	39	525	259	269	182
Nebraska	93	54	34	34	1,869	1,220	1,227	774
Nevada	17	3	14	14	129	100	91	72
New Hampshire	10	10	....	....	601	504	489	274
New Jersey	21	21	....	....	3,567	2,118	2,240	1,687
New Mexico	31	13	15	14	365	263	260	148
New York	62	60	1	1	17,671	10,396	10,885	7,044
N. Carolina	100	71	20	20	2,281	1,612	1,686	697
North Dakota	53	14	2	2	485	380	394	286
Ohio	88	85	3	3	8,113	5,206	5,240	3,082
Oklahoma	77	69	9	9	2,524	1,686	1,553	735
Oregon	36	17	2	2	1,176	482	551	369
Pennsylvania	67	63	4	4	11,140	7,474	7,502	4,921
Rhode Island	5	6	....	1	771	411	423	309
South Carolina	46	40	5	5	1,317	957	861	389
South Dakota	69	11	2	2	604	352	343	239
Tennessee	95	67	25	25	3,128	1,616	1,571	741
Texas	254	135	73	73	6,063	3,758	3,479	1,784
Utah	29	6	22	22	505	330	357	232
Vermont	14	10	3	3	537	365	353	202
Virginia	100	51	43	43	2,534	1,845	1,846	786
Washington	39	19	20	20	1,781	1,165	1,132	701
West Virginia	55	26	14	14	1,753	1,174	1,020	590
Wisconsin	71	52	2	1	2,826	1,846	2,054	1,368
Wyoming	23	7	13	13	255	135	149	98
Alaska	....	....	....	....	56	20	21	....
Hawaii	5	3	....	....	225	104	131	63
Porto Rico (districts)	7	7	....	....	321	153	166	45
Canal Zone	....	....	....	....	127	90	110	26
Philippine Islands (provinces)	56	2	....	....	905	151	174	50
Foreign	....	....	....	....	.....	.....	.....	150
Total	3,136	2,069	641	640	148,644	90,646	91,792	56,302

Commissioned Officers, Honorary and Affiliate Fellows	2,379
	58,681

CONSTITUENT ASSOCIATIONS

Most of the constituent associations have made definite progress during the year in strengthening themselves as organizations and in providing more helpful service for their members. Some have extended their activities so that the benefits of membership have been greatly enhanced. The state associations as such are, in most instances, stronger than ever before. A great deal has been done within the last few years toward perfecting their organizational machinery.

The councils are, in most of the states, functioning to fine advantage; standing and special committees are, in most instances, working more earnestly at their jobs; the financial position of most of the state organizations has been definitely improved; the elected officers, having been provided with better facilities for work, and having received more earnest co-operation from committees and members, have measured up splendidly to their opportunities and responsibilities. As a result of all this, the state associations, generally speaking, have gained greatly in prestige and influence, and have materially improved their service to their own members and to the public.

The Hawaii Territorial Medical Association has organized on the county unit basis.

COMPONENT COUNTY SOCIETIES

The County Medical Society is the fundamental unit in our scheme of organization. More than that, it is the essential factor in the record, whether of progress or otherwise, that may be made by medical organization as a whole. A constituent state association cannot permanently succeed, no matter how its own separate machinery may be developed, unless its component County Societies are meeting their own responsibilities with reasonable efficiency. No more can the American Medical Association fully succeed unless its basic units are efficient. There are those things that must be done, and done well, by the County Society for itself and for organized medicine as a whole. In building up the state association or the American Medical Association, great care should be taken to see to it that nothing is done to weaken the County Society, whether by taking over the work it should do for itself or by any other method.

As has been stated in reports heretofore submitted, there are, as is clearly shown by official reports from their own officers, too many County Societies that are stagnant. In many instances persistent effort has been made to stimulate them into action without any measurable success. It might be worth while for the state associations to undertake a careful survey, each within its own jurisdiction, with a view to making a final effort toward bringing every chartered component unit as now constituted into useful activity, or, failing that, to effect organization anew by the combination of two or more counties into one society. This plan has already been tried to good advantage in some instances.

Turning to a brighter side of the general picture, it is extremely gratifying to report that many County Societies in all sections of the country are doing more and better work than ever before. Among these are some with relatively small membership. Their programs of work, scientific and otherwise, are prepared with care and carried out with inspiring enthusiasm. Such societies confer real benefits on their members and exert a most helpful influence in their own several communities. They are the strength of medical organization in the United States.

SCIENTIFIC WORK

It is easily apparent to any who will examine the facts that the scientific work of constituent associations and of active component County Societies is showing constant improvement—in both quantity and quality. More and more the scientific programs are being made really purposeful. This appears to be largely due to the fact that the compilation of these programs is made the duty of qualified committees, elected officers, or otherwise. The programs are planned far enough ahead to give contributors ample time for the preparation of well thought out papers and discussions.

There seems to be a growing tendency on the part of some County and district Societies toward depending on "outside talent" exclusively for program material. It may be that this tendency, if permitted to develop, will destroy one of the important purposes of these societies, namely, to encourage study and promote the art of expression, by both the written and the spoken word, among their own members.

ANNUAL CONFERENCE OF SECRETARIES OF CONSTITUENT STATE ASSOCIATIONS

The regular annual conference of secretaries of constituent associations was held in Chicago in November, 1925. As in 1924, editors of all state association journals were invited to attend, and most of them were present. The papers and discussions of the conference have appeared in the Bulletin.

CONSTITUTION AND BY-LAWS FOR STATE ASSOCIATIONS

The draft of a constitution and by-laws for state associations, prepared by a special committee of the

House of Delegates, was referred by the House at its last session to the constituent associations. The secretaries of all state and territorial associations were duly notified of this action, and copies of the draft were sent them. Only one state association, Washington, has taken definite action, so far as the Secretary is advised. Most of the constituent associations have referred the matter to committees. These will probably report at annual sessions held this year. In the meantime, a number of County Societies have amended, or are considering amendment of, their constitutions and by-laws.

The special committee of the House of Delegates was instructed to prepare a draft of a constitution and by-laws for County Societies, also. As was reported to the House last year, the committee felt that, as the state association issues charters to its County Societies and requires that there shall be no conflict between its own constitution and by-laws and that of a component society, it would be necessary to have action first from the state organizations. This attitude of the committee was approved by the House of Delegates. It is hoped that all state associations will take definite action with respect to this important matter this year. The committee can then continue its study with the benefit of approval or disapproval that may be recorded by the constituent associations, and can within a year or two prepare a draft of a constitution and by-laws for County Societies designed to secure that uniformity which is apparently needed in our organized laws.

ELECTION OF DELEGATES AND ALTERNATE DELEGATES

It is of great importance that delegates and alternate delegates shall be elected in accordance with the provisions of the constitutions and by-laws of the constituent associations and of the American Medical Association. It has happened, on occasions, that sections of the Scientific Assembly, and even state associations, have failed to elect alternate delegates. In at least one instance there was failure to elect a delegate.

It is specifically provided that none but those who have been Fellows for two years immediately preceding the session at which they are tot serve are eligible for election as delegates or as alternates. Year after year, this requirement of the by-laws is ignored, and those ineligible are elected. It may happen, unless more care is exercised in the matter, that one or more constituent associations may be denied representation in the House of Delegates because of failure to observe the definite provisions of the law.

ACKNOWLEDGMENT

The privilege of the opportunity to serve as Secretary of the Association and its House of Delegates has been greatly enhanced by helpful co-operation and kindly consideration that have been received from practically every member, Fellow and officer of the Association with whom the Secretary has had official contact.

Olin West, Secretary.

REPORT OF THE BOARD OF TRUSTEES

To the Members of the House of Delegates of the American Medical Association:

It is not possible in any annual report to present in detail more than a part of the activities of the various councils, bureaus, committees, and departments of the Association whose work is covered in a report of the Board of Trustees.

During the year 1925, almost every separate division of the Association has been called on for increased service. The work of the Association has grown in scope and in amount. New and helpful contacts have been established in various fields. Favorable comment received and increase in circulation noted with nearly all of the publications of the Association seeming to indicate that they have gained influence and prestige. As will be seen from the financial report which is appended, the year has been a prosperous one for the Association.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

In the quantity and in character of material published, The Journal has maintained its leading position in medical journalism. The number of manuscripts received, accepted or rejected in 1925 was approximately the same as for each of the last three years. Especial attention has been given toward increasing the scope and accuracy of news material in The Journal by the assignment of special correspondents, utilizing for this purpose officers of constituent associations and component County Societies, and by establishing more intimate relationships with various medical organizations. Attention is called particularly to the elaboration of foreign correspondence; special articles, such as analyses of diphtheria and typhoid fever mortalities throughout the world, the technic of medication, medical education, physical therapy, and other topics. The department of the Bureau of Investibation in The Journal has been devoted to the publication of exposes of great importance to physicians and the public, informing them of attempts to impose on their credulity, of efforts to promote nostrums of unproved value, and of schemes of various kinds in the twilight zone of medical practice. As a result of one such publication, suit for libel has been instituted against the Association by a corporation promoting a so-called cure for cancer. Of especial interest also were articles published during the year on the "Defensive Diet League," and on the "American Association for Medico-Physical Research," representing attempts to give the medical profession the facts on organizations of national scope on the borderland of medicine.

There has been notable increase in correspondence, including requests for information and discussions of articles appearing in The Journal, an indication of the continuing interest of the medical profession in the type of material published.

SUBSCRIPTION DEPARTMENT

The total circulation of The Journal, January 1, 1925, was 85,356. January 1, 1926, the mailing list contained 86,582 names, and thus was established a new high mark in circulation. While exchanges, advertisers, and a very limited complimentary list are included in these figures, they do not include Fellows who are commissioned medical officers in government service, Honorary, Affiliate or Associate Fellows, and those whose Journals are being held temporarily, to the number of 4,722; nor do they include those who are receiving special journals published by the Association in lieu of The Journal of the American Medical Association. The Subscription and Membership departments, working hand in hand, have used the same methods that have been found efficatious in the past in maintaining circulation.

Through the use of form letters, through the efforts of agents, through the distribution of sample copies, and, to some extent, through the offer of premiums, the circulation of The Journal has been maintained and extended.

The total number of copies printed in 1925 was 4,493,437. The gross weekly average was 86,412.

The total number of Fellows on the mailing list, January 1, 1926, was 53,705, an increase of 1,467 over 1925. The total number of subscribers other than Fellows, January 1, 1926, was 32,113. Table A, appended, presents an approximate count of Fellows and subscribers on the mailing list of The Journal, December 31, 1925, and shows gain or loss over the previous year in each state and territory.

It will be noted that the largest gain registered was in New York State, while the largest loss was in Georgia. There appears to have been a loss of about 5 per cent in the number of physicians in Georgia, which explains, perhaps, part of the loss in circulation in that state.

TABLE A.—APPROXIMATE COUNT OF FELLOWS AND SUBSCRIBERS ON MAILING LIST, DEC. 31, 1925; ALSO GAIN OR LOSS OVER THE PREVIOUS YEAR

State	Fellows	Subscribers	Totals	Gain for Year	Loss for Year
Alabama	488	326	814	.....	28
Arizona	159	84	243	.....	16
Arkansas	458	201	659	.....	41
California	3,136	1,889	5,025	14	....
Colorado	686	324	1,010	7	....
Connecticut	797	430	1,227	5	....
Delaware	88	51	139	10	....
District of Columbia	413	395	808	20	....
Florida	477	313	790	153	....
Georgia	774	365	1,139	.....	138
Idaho	146	80	226	.....	9
Illinois	4,996	2,523	7,519	.....	45
Indiana	1,495	683	2,178	6	....
Iowa	1,459	556	2,015	86	....
Kansas	870	369	1,239	.....	25
Kentucky	764	332	1,096	.....	64
Louisiana	667	278	945	3	....
Maine	386	164	550	2	....
Maryland	801	466	1,267	.....	2
Massachusetts	2,719	1,218	3,937	6	....
Michigan	1,827	1,161	2,988	151	....
Minnesota	1,259	679	1,938	.....	1
Mississippi	311	193	504	.....	6
Missouri	1,938	887	2,825	.....	43
Montana	166	146	312	4	....
Nebraska	713	451	1,164	20	....
Nevada	71	19	90	.....	....
New Hampshire	268	65	333	.....	18
New Jersey	1,650	879	2,529	36	....
New Mexico	146	71	217	8	....
New York	6,759	4,060	10,819	677	....
North Carolina	640	327	967	.....	31
North Dakota	245	97	342	.....	3
Ohio	2,921	1,620	4,541	114	....
Oklahoma	659	280	939	.....	52
Oregon	347	277	624	.....	12
Pennsylvania	4,757	2,223	6,980	96	....
Rhode Island	299	124	423	.....	26
South Carolina	357	230	587	.....	75
South Dakota	216	145	361	.....	13
Tennessee	678	407	1,085	.....	17
Texas	1,632	758	2,390	.....	87
Utah	208	95	303	.....	17
Vermont	192	95	287	.....	24
Virginia	758	567	1,325	145	....
Washington	651	361	1,012	.....	24
West Virginia	562	311	873	.....	18
Wisconsin	1,250	640	1,890	19	....
Wyoming	95	58	153	.....	11
U. S. Army	.....	193	193	1	....
U. S. Navy	.....	275	275	.....	....
Alaska	12	15	27	2	....
Canada	22	967	989	36	....
Cuba	3	51	54	4	....
Hawaii	51	59	110	10	....
Mexico	21	109	130	22	....
Panama	22	23	45	.....	....
Philippine Islands	44	122	166	.....	3
Porto Rico	42	47	89	26	....
Virgin Islands	.....	3	3	3	....
Foreign	134	1,976	2,110	181	....

Table B gives the number of physicians (based on the Ninth Edition of the American Medical Directory) in the United States, the number receiving The Journal, and the approximate percentage in each state. Physicians in the United States Army, United States Navy, United States Public Health Service, etc., are not included.

TABLE B.—PERCENTAGE OF PHYSICIANS RECEIVING THE JOURNAL

State	Number Receiving Journal	Physicians in State, 9th A.M.A. Directory	Approximate Percentage, 9th A.M.A. Directory
Alambama	814	2,284	36
Arizona	243	378	64
Arkansas	659	2,212	29
California	5,025	8,363	60
Colorado	1,010	1,837	55
Connecticut	1,227	1,884	65
Delaware	139	256	54
District of Columbia	808	1,813	45
Florida	790	1,452	54
Georgia	1,139	3,122	36
Idaho	226	416	54
Illinois	7,519	10,743	70
Indiana	2,178	4,251	51
Iowa	2,015	3,378	59
Kansas	1,239	2,364	52
Kentucky	1,096	3,041	36
Louisiana	945	1,991	47
Maine	550	1,037	53
Maryland	1,267	2,313	55
Massachusetts	3,937	6,187	64
Michigan	2,988	4,837	62
Minnesota	1,938	2,823	69
Mississippi	504	1,702	29
Missouri	2,825	5,806	49
Montana	312	525	59
Nebraska	1,164	1,869	62
Nevada	90	129	69
New Hampshire	333	601	55
New Jersey	2,529	3,567	71
New Mexico	217	365	59
New York	10,819	17,671	61
North Carolina	967	2,281	42
North Dakota	342	485	70
Ohio	4,541	8,113	56
Oklahoma	939	2,524	37
Oregon	624	1,176	53
Pennsylvania	6,980	11,140	62
Rhode Island	423	771	55
South Carolina	587	1,317	45
South Dakota	361	604	60
Tennessee	1,085	3,128	35
Texas	2,390	6,063	39
Utah	303	505	60
Vermont	287	537	53
Virginia	1,325	2,534	52
Washington	1,012	1,781	57
West Virginia	873	1,753	50
Wisconsin	1,890	2,826	67
Wyoming	153	255	60

Ten years ago, 41,938 Fellows and 22,921 other than Fellows received The Journal; five years ago, 46,669 Fellows, and 31,347 other than Fellows; while on January 1, 1926, as has been shown above, the number of Fellows receiving The Journal had increased by approximately 12,000 over 1916, and by a little more than 7,000 over 1921. The number of subscribers other than Fellows, which was 22,921 in 1915 and 31,345 in 1921, has grown to 32,113, January 1, 1926.

ADVERTISING DEPARTMENT

Total receipts from the sale of advertising space in The Journal for the year 1925 were $679,864.21, which represents a gain over the receipts of the preceding year of about 11 per cent. This splendid income, which it is intended to use to the advantage of physicians in the United States, has been secured by reason of the high valuation which manufacturers and others who deal with the medical profession appear to have placed on The Journal as an advertising medium; but it also represents the result of most loyal and efficient service on the part of the personnel of the advertising department.

The advertising pages of The Journal have been carefully censored, as heretofore, by the Advertising Committee, composed of members of the administrative personnel at the headquarters offices. A large volume of advertising tendered The Journal has been refused because it has failed to

meet the approval of this committee, or because its character was such as to make it unacceptable. It is gratifying to note that, though careful censorship of advertising material has been maintained, there has been less friction between the department and those who would use the advertising pages of The Journal than in former years. Effort has been made to acquaint prospective advertisers with the provisions of the rules of the Association governing the acceptance of advertising matter, and to explain the reasons therefor. The result appears to have been that in some instances advertisers have come to see the point of view of the medical profession with respect to these matters and have governed themselves accordingly.

SPECIAL JOURNALS

The circulation of the special journals for 1925 was as follows: Archives of Internal Medicine, 3,383, a gain of 626 over the preceding year; American Journal of Diseases of Children, 3,744, a gain of 636; Archives of Neurology and Psychiatry, 1,289, a gain of 15; Archives of Dermatology and Syphilology, 1,431, a gain of 37; Archives of Surgery, 2,651, a gain of 32.

The Archives of Otolaryngology, with 2,121 subscribers, January 15, 1925, at which time the first number was issued, closed the year with a subscription list of 2,997, new subscriptions having been entered during the year to the number of 876.

The Archives of Pathology and Laboratory Medicine made its appearance in January, 1926, with a subscription list containing 1,165 names. Dr. Ludvig Hektoen, Chicago, chairman; Dr. James Ewing, New York; Dr. William Ophuls, San Francisco; Dr. W. G. MacCallum, Baltimore; Dr. S. B. Wolbach, Boston, and Dr. Alfred Stengel of Philadelphia, are the members of the editorial board of this new journal, which has been very cordially received by those who are interested in the fields which it is intended to cover.

The circulation of the older members of the Association's group of special journals has been well maintained throughout the year, and, as will be noted from this report, there has been a gratifying increase in the subscription list of several. The first year of the Archives of Otolaryngology has far exceeded the expectations of the Board of Trustees and of its editorial board so far as circulation is concerned, and has received high commendation from many of its readers as well as complimentary notice at the hands of other journals.

The profit and loss on these special journals for 1925 is shown in the following table:

Internal Medicine	Gain,	$1,971.35
Diseases of Children	Gain,	2,388.64
Surgery	Gain,	2,969.67
Otolaryngology	Gain,	5,172.14
Neurology and Psychiatry	Loss,	2,520.30
Dermatology and Syphilology	Loss,	3,002.20

QUARTERLY CUMULATIVE INDEX

The mailing list of the Quarterly Cumulative Index, January 1, 1925, carried 1,271 names, fifty-nine more than on January 1, 1925. The gain in circulation for this important publication for the year was considerably larger than that reported for any similar period in several years, and was secured notwithstanding the increase in the subscription price.

The net cost of the Quarterly Cumulative Index for 1925 was $12,678.53, which sum represents an increase of $1,289.95 over the net cost of this publication in 1924. The increased cost of publication is due to enlargement and improvement, whereby a considerably larger number of scientific periodicals have been indexed.

AMERICAN MEDICAL DIRECTORY

The Ninth Edition of the American Medical Directory was issued during the year at a cost of $138,106.03. For the first time in the history of this publication, the income has exceeded the cost directly chargeable to the Directory, so that a net gain amounting to $847.43 appears on the credit side of the ledger. This gain, while gratifying to note, is, in reality, more apparent than actual, and arises from the fact that it is not possible, without undue expense, to keep an accurate account which will minutely distribute all charges among the various departments that are indirectly concerned with the production of the Directory. The favorable financial showing of the Directory has been, to some extent, due to economies effected by changes in printing and make-up, but has been more largely due to the faithful and efficient service rendered by that part of the Association's official personnel directly charged with the duties of its compilation and publication.

The Ninth Edition of the American Medical Directory has perhaps received more favorable comment from subscribers than any preceding edition. This publication represents an important and valuable service rendered by the Association to physicians of the country and to those with whom they must have business dealings. It is invaluable and necessary to the Association itself and is used to great advantage by State and County Societies, hospitals and other organizations and institutions with which physicians are concerned.

HYGEIA

The circulation of Hygeia, reported to the House of Delegates as of January 1, 1925, was slightly more than 30,000. On January 1, 1926, the total circulation, including paid subscriptions and news-stand sales, was 40,547. The average number of copies printed monthly during 1925 was 41,673, practically all of which were distributed through paid subscriptions, news-stand sales, exchanges, and sample copies used in soliciting new subscriptions.

The net loss occasioned by the publication for nine months in 1923 was $38,989.64; for the twelve months of 1924, $42,745.14; for the twelve months of 1925 the net loss was $5,198.12. That the loss occasioned by the publication of this periodical was reduced by more than $37,000 in one year is extremely gratifying to the Board of Trustees. The saving indicated was effected as a result of most loyal and most efficient service on the part of the editorial department of Hygeia and the personnel of the business department, and reflects the generous spirit exhibited by contributors and a more liberal patronage on the part of advertisers.

While the circulation of Hygeia has not increased to the extent that was hoped for and should have been realized, the growth in circulation has none the less been very gratifying in view of the fact that it has not been possible to resort to the far reaching and expensive methods that are generally necessary to the extension of magazine circulation.

That Hygeia has made definite progress in extending the breadth of its influence and importance is shown in its slowly but constantly increasing circulation and in its growing use as an advertising medium by advertisers of national importance. This is even more strongly reflected in the numerous quotations from its pages, which appear in magazines and in newspapers throughout the United States. Coincident with the growth in circulation and influence has come an increase in general correspondence, the letters and inquiries from the public now aggregating many hundreds annually. Commendations from physicians and from laymen

continue to be received in most encouraging numbers.

Much of the material that has been printed in Hygeia has been reprinted for the use of the Bureau of Health and Public Instruction, and has accordingly received larger distribution than through the magazine alone.

The program that has been arranged for Hygeia for the current year includes the publication of articles on many topics of general and important public interest.

The appended table shows the number of direct subscribers in each state in December, 1925. Figures given in this table do not include subscriptions received after the table was prepared, and so the totals, if set out, would not represent the total circulation as of January 1, 1926. A study of this table, compared with the similar table in the report of the Board of Trustees last year, will show that the circulation has increased in every state and territory except Arizona and the District of Columbia. In the District of Columbia, only one subscriber was lost. The gains that have been made in some states, however, are relatively small, although in most instances they are large enough to offer much encouragement for the future of Hygeia. The news-stand circulation, which has registered a slight increase month by month, is not shown in this table.

Ssate	Physicians	Laity	Total
Alabama	148	167	315
Arizona	70	128	198
Arkansas	140	319	459
California	837	1,269	2,106
Colorado	220	182	402
Connecticut	270	220	490
Delaware	25	28	53
District of Columbia	142	103	245
Florida	135	150	285
Georgia	165	132	297
Idaho	73	78	151
Illinois	1,321	1,923	3,244
Indiana	590	811	1,401
Iowa	640	955	1,595
Kansas	328	472	800
Kentucky	184	137	321
Louisiana	136	329	465
Maine	114	126	240
Maryland	147	165	312
Massachusetts	602	595	1,197
Michigan	841	958	1,799
Minnesota	291	506	797
Mississippi	112	89	201
Missouri	421	683	1,104
Montana	65	124	189
Nebraska	255	360	615
Nevada	35	23	58
New Hampshire	65	67	132
New Jersey	365	312	677
New Mexico	50	49	99
New York	1,784	1,594	3,378
North Carolina	129	203	332
North Dakota	93	123	216
Ohio	891	1,185	2,076
Oklahoma	225	259	484
Oregon	128	168	296
Pennsylvania	1,677	1,483	3,160
Rhode Island	66	60	126
South Carolina	105	74	179
South Dakota	83	142	225
Tennessee	162	203	365
Texas	404	668	1,072
Utah	70	190	260
Vermont	51	70	121
Virginia	194	295	489
Washington	189	318	507
West Virginia	148	344	492
Wisconsin	416	1,002	1,418
Wyoming	24	85	109
Possessions	61	134	195
Canada	107	290	397
Foreign	161	266	427

It is shown in this table that in 36 states the circulation of Hygeia, exclusive of news-stand sales, is greater among laymen than among physicians.

BUREAU OF INVESTIGATION

The work of this bureau has been prosecuted vigorously. That the interest of the medical profession does not decrease is shown by the fact that more demands were made on the bureau during 1925 than ever before.

INQUIRIES FROM TEACHERS AND SCHOOLS

Teachers in universities, normal schools and high schools continue to ply the bureau with requests for information on "patent medicines." As a natural result, the bureau receives a large number of inquiries from pupils, not only in the higher institutions of learning, but also from the secondary schools. This feature of the bureau's work is probably pregnant with greater good for public health than any other of its activities, because it means that young people at an impressionable age are getting facts, relative to one important health problem, that will cling to them through life.

PHYSICIANS AND THE BUREAU

The physician in the field continues to utilize the services of the Association that are given through the Bureau of Investigation. Numerous letters of appreciation and commendation are received from physicians to whom the bureau has furnished information.

The lantern slides illustrating the various phases of quackery and the nostrum evil which for some years, have been made available by rental or sale to physicians, have recently been supplemented. The same material has been put on stereopticon film so that it can be used in a small, light, portable stereopticon. The Bureau of Investigation now has one of these stereopticons, and the entire outfit can be rented by physicians who wish to give illustrated talks before small audiences when a picture not exceeding four or five feet in length will suit the purpose. The use of this machine will prove of value in cases in which the physician finds it difficult to obtain a standard projection apparatus and operator, since he can either operate the machine as he talks, or it can easily be operated by any untrained person.

CO.OPERATION WITH COUNTY SOCIETIES AND STATE ASSOCIATIONS

The bureau is now being called on to a greater extend than ever before by officials of the component County Societies and of the constituent State Associations who seek information concerning physicians not members of these Societies, but who may be seeking membership or who may be potential timber for membership. It would be greatly to the interest of clean, organized medicine for officers of constituent State Associations to obtain from the Bureau of Investigation information relative to individual physicians who may apply for, or be solicited for membership.

PAMPHLETS AND REPRINTS

The various pamphlets on quackery and the nostrum evil prepared by the bureau have been kept up to date. In addition, reprints have been made of articles that might serve a special purpose. The series of four articles that appeared in Hygeia under the general title "Eploiting the Health Interest," and which dealt with the so-called "physical culture" propaganda has been reprinted as a special pamphlet. Copies of this pamphlet are put into the hands of the officers of constituent state and component County Medical Societies when required. The article on "Deafness Cure Quackery and Pseudo-Medicine," which also appeared in Hygeia, has been reprinted, and two thousand copies are being distributed by the American Federation of Organizations for the Hard of Hearing.

NEWSPAPERS AND MAGAZINES

Those newspapers an dmagazines that make some effort to keep their advertising columns free from medical fakes continue to call on the bureau for information that will enable them to act intelligently when advertising copy is submitted to them.

Hygeia continues to bring an ever-increasing number of inquiries from laymen on matters pertaining to "patent medicine" quackery and pseudomedicine generally.

The demand for educational posters is larger than ever, and the supply of those dealing with vitamins in food and food-iron have been exhausted. With the valued assistance of some of the best authorities on nutrition and dietetics, these posters are now in process of revision, and new editions will be issued.

BUREAU OF HEALTH AND PUBLIC INSTRUCTION

The number of physicians and medical societies, as well as the number of laymen and lay organizations, seeking material to aid them in their programs for the instruction of the public in matters pertaining to medicine is steadily increasing. Some of the stronger State Medical Associations are well organized and equipped to conduct effective campaigns in this direction. With others this is not the case. In some states, semi-lay organizations have been created that are very closely affiliated with the State Medical Associations in order that intelligent guidance may be had. In most states the state boards of health are very active in the field of public education. From all the states a constantly increasing demand for information and for educational material comes to the Bureau of Health and Public Instruction.

NEW PAMPHLETS

One of the principal functions of this bureau is to supply material in the shape of short, attractive pamphlets written for the laymen, to be circulated by the various agents referred to above. To the list of publications of the bureau, there have been added those named below:

1. Health Poster Booklet. Reproduction in miniature of 207 posters.
2. Whooping Cough. Dr. Beatrice R. Lovett, from Hygeia for March, 1925.
*3. Health of the Worker. Lee K. Frankel, from Hygeia for April, 1925.
*4. Conquest of Yellow Fever. Dr. Arthur I. Kendall, from Hygeia for April, 1925.
5. Eleven Exercises for Men. Prof. S. C. Staley, from Hygeia for June, 1925.
6. (a) Food After Forty. Mary S. Rose, from Hygeia for July, 1925.
   (b) Reducing as a Science. Stern and Meserve, from Hygeia for July, 1924.
   (c) Now this Matter of Reducing. L. M. Davidoff, from Hygeia for April, 1924.
   (d) Fooling the Fat. Dr. Arthur J. Cramp, from Hygeia for December, 1923.
   (These four articles reprinted as a single pamphlet under the title "Obesity—Helpful Advice to the Overweights" from Hygeia.)
7. (a) Have I good Eyes? from Hygeia for December, 1924.
   (b) Baby's Eyes, from Hygeia for July, 1925.
   (c) Eyes for School, from Hygeia for September, 1925.
   (These three articles, by Dr. Edward Jackson, reprinted in one pamphlet.)
*8. Shall I Fear an Anesthetic? Dr. Floyd T. Romberger, from Hygeia for August, 1925.
9. Cancer of the Stomach. Dr. Julius Friedenwald, from Hygeia for August, 1925.
10. How I Use Hygeia in My Classwork. Prize letters reprinted from the issues of Hygeia for September, October and November, 1925.
*11. Exercises for Business Women. Lydia Clark, from Hygeia for November, 1925.

*Reprinted on advance order from the author or some other agency.

It will be noted that all of these have appeared in Hygeia, and reprints have been made of the original articles for distribution on demand.

DISTRIBUTION OF PAMPHLETS, POSTERS AND OTHER MATERIAL

More than 214,000 copies of the publications distributed through this bureau were disposed of in 1925. The new Manual of Suggestions for Health Examinations was distributed among physicians to the number of 31,455 during the year, in addition to more than 5,000 copies of the smaller pamphlet first published under the title of "Health Examination Instructions." The demand for pamphlets on cancer, conservation of vision, protection of scientific research, sex education, infant welfare, and communicable diseases has been well sustained.

HEALTH EXHIBITS

Exhibits from the Bureau of Health and Public Instruction from Hygeia were displayed during the year at the annual session of the American Medical Association; at the meeting of the Superintendents' Section of the National Education Association; at the National Baby Congress and Health Exposition of the Illinois State Medical Society, in Chicago; at the meeting of the American Dental Association, in Louisville, Ky., and at the meetings of several State Medical Associations. Material has also been provided for exhibits under the auspices of State and County Medical Societies and other organizations.

HYGEIA QUESTIONS AND ANSWERS COLUMN

The conduct of the "Questions and Answers" column in Hygeia has devolved largely on this bureau. The number of questions received has steadily increased, and replies have been sent direct to inquirers. Many of the questions are in the nature of repetitions. Only those of general interest have been replied to in Hygeia. All questions are answered, whenever possible, by physicians who are recognized as authorities in their several fields, and thus, this department in Hygeia is given a character of authority and weight that is distinctive. The replies that are thus provided are printed without signature. The bureau and the Association are much indebted to Fellows who have given of their time and thought in this service.

PERIODIC HEALTH EXAMINATIONS

The movement to promote periodic examinations of apparently healthy persons is proceeding in a reasonably satisfactory manner. The preparation of a Manual of Suggestions for Health Examinations for physicians was undertaken with the assistance of a special committee, which revised the examination blank heretofore used. The committee that performed this important work was composed of Fellows of the Association of the highest professional standing. To secure a primary draft, to subject it to revision and rerevision by each member of the committee required considerable time, but it was believed to be important that, before the manual was published, it should have the critical study and approval of the entire committee. The manual appears to have met with a cordial reception by the professional throughout the country. Twelve state medical associations have purchased enough copies of the manual to present one copy to each of their members. It has been furnished to these state associations at cost.

CONFERENCE ON PERIODIC HEALTH EXAMINATIONS

Pursuant to the action of the House of Delegates at the Atlantic City Session, a Conference on Periodic Health Examinations was held in Chicago,

November 20 and 21, 1925, at the same time that the Conference of Secretaries of Constituent State Medical Associations was held. This conference was well attended, and it is believed that the papers and discussions offered constitute an important contribution. The proceedings have been reported in abstract in The Journal and have been published in full in the American Medical Association Bulletin. One of the outstanding lessons of this conference appears to teach that the especial need at this time is for leaders in each state who will serve as lecturers and demonstrators to County and District Medical Societies for the purpose of promoting periodic medical examinations, by practicing physicians, as a distinct service that can be rendered to the public by the profession.

It is suggested that every County and District Medical Society should devote at least a portion of two meetings during the year to the subject of periodic medical examinations. With the aid of officers of the State Medical Association concerned, each County and District Medical Society should be able to secure a lecturer and demonstrator for at least one meeting. The faculties of medical schools should, and undoubtedly will, be glad to cooperate in this important work.

LANTERN SLIDES

Through the kindness of Dr. S. Dana Hubbard of the New York City Department of Health, the Bureau of Health and Public Instruction has received about 400 lantern slides dealing with health topics. It is hoped that this collection of slides can be enlarged and cataloged, and made easily available to County Medical Societies and other organizations that may desire to use them.

HEALTH EDUCATION OF THE PUBLIC

At the suggestion of the Surgeon General of the United States Public Health Service, the bureau undertook to ascertain what each State and County Medical Society is doing in the matter of health education of the public. The United States Public Health Service undertook a similar inquiry with respect to the activities of local and state departments of health. A questionnaire was sent out by the Bureau of Health and Public Instruction to the secretary of every State and County Medical Society. About 900 replies have been received. Recently a second letter has been sent to Societies that did not reply to the first. A tabulation of 890 of the replies received gives the following information as to the activities of County Medical Societies in this field:

Two hundred and sixty-two, or about 30 per cent, are engaged in promoting health education.

Only fourteen of these societies publish a bulletin or equivalent.

Four hundred and five have made use of newspapers as a medium of disseminating helpful information.

Two hundred and forty-four have used Hygeia, in one way or another, in this educational work.

Four hundred and fifteen report that talks on health have been delivered by members of these societies.

Forty-two have made use of the radio.

Two hundred and seventy-seven societies report that organizations in which laymen are co-operating have been formed to promote health activities.

Three hundred and sixty-nine have staged health exhibits.

Four hundred and fifteen have been interested in special campaigns, such as those promoted against tuberculosis, cancer and for infant welfare.

One hundred and seventy-two have taken active steps to promote periodic health examinations.

RADIO HEALTH TALKS

Through station KYW, Chicago, the bureau has continued its monthly program of health talks, using material from Hygeia. Recently, KYW assigned a definite hour to the bureau, and these talks will be broadcast at 2:30 p. m. on the second Monday of each month. Material from Hygeia is also being broadcast from stations located in several cities, this being done under the auspices of local medical societies.

COUNCIL ON PHARMACY AND CHEMISTRY

The Council on Pharmacy and Chemistry during the past year has carried forward its work of informing the medical profession in regard to proprietary medicines which physicians are importuned to use.

The service this council is rendering the medical profession is gaining greater appreciation each year, and increasing numbers of physicians are availing themselves of the information placed at their disposal. As a result, the commercial production and distribution of medicinal products is on a higher plane in the United States than in any other country; as a further result of the Council's vigilance, promoters of foreign proprietaries do not, in general, attempt the marketing of their products in this country unless these are of a character to receive favorable consideration by the Council.

However, the work of this body of trained men, who labor untiringly and without remuneration in the cause of rational and scientific medicine, deserves even wider recognition and acceptance. It will receive this when physicians more generally recognize the fact that those who compose the Council have the needed specialized training to enable them, better than the average physician, to form a correct estimate of the many new medicaments appearing each year; as, for instance, when the chemist challenges the asserted composition of a composition of a medicament because the formula is in woeful disagreement with chemical laws; when the pharmacist recognizes a "new" Danish iron compound as the almost forgotten dialysed iron; or when the pharmacologist notes that the supposed effects of a drug indicated by a tracing were already perceptible before the administration of the drug was begun.

THE COUNCIL AT WORK

During the year the Council has considered its usual quota of proprietary and nonproprietary substances. Of these, about one-half were found acceptable for New and Nonofficial Remedies; a few were found not to come within the scope of this book; less than one-fourth were found unacceptable, and the remainder are still under consideration.

Among the products that were accepted for inclusion in the 1926 edition of New and Nonofficial Remedies, now in press, are scarlet fever toxin preparations used to determine susceptibility or to establish immunity, and curative scarlet fever antitoxins; a parathyroid extract of determined effect on the calcium content of blood serum; two antimony compounds for use in trypanosomic infections; tryparsamide, developed in the Rockefeller Institute for Medical Research; tetraiodophthalein sodium, for the visualization of the gallbladder; and hexylresorcinol, developed by Veader Leonard.

Included among the phoducts that were held not to require acceptance (because they were official articles, sold under official names and without unestablished claims) were a number of "natural" salicylate preparations. Formerly, salicylates made from oil of wintergreen of sweet birch were sold as "natural," with claims of great superiority over the "synthetic" variety made from phenol; the extensive researches of the Council have brought about the abandonment of such claims of superiority in the case of certain brands, which are now

sold with the claim, simply, that they are made from the natural oil.

Among the products that were denied admission to New and Nonofficial Remedies was a French bismuth preparation, claimed to be tartrobismuthate of potassium and sodium. Accepting the uncontrolled statement of the manufacturer, physicians have published articles detailing their experiences with this "tartrobismuthate of potassium and sodium," and thus medical literature is permanently marred by the uncontrolled acceptance of incorrect proprietary propaganda. The product was found not to have the composition claimed, but to be a bismuth tartrate.

Other preparations that had to be rejected included: "colloidal gold," an asserted cancer remedy; a dried yeast preparation offered as a diabetes remedy; a germanium dioxide preparation for use in anemia; liposan; a chaulmoogra oil soap solution for intravenous use against a host of conditions; and an assortment of complex, unscientific mixtures which certain firms still exploit and which, it is feared, an undue number of physicians continue to prescribe.

Of the products that are still under consideration, a few await action on the part of the Council; the very large majority, however, are being held to await action by the proprietor or agent—chiefly either the discontinuance of claims that were found unacceptable or the submission of further evidence in support of claims that have been challenged.

In addition to the consideration of products that are presented for acceptance, the Council spends much time in determining whether the articles that have been accepted may be continued in New and Nonofficiall Remedies. Products are accepted for a specified period—usually for three years—and at the expiration of that time the Council examines the current claims for the product and decides whether it may be retained or must be deleted. If retained, the question of revising the N. N. R. description is considered.

The care with which the Council conducts the examination of products will be better appreciated if it is pointed out that the information submitted for a product by a manufacturer is presented to the entire Council in a weekly bulletin; that all reports are considered by the entire Council through this bulletin; that the advertising material for a product is submitted to each member, and that an unfavorable report is sent to the proprietor of a product and his reply considered through this bulletin before such a report is published.

THE COUNCIL PUBLICATIONS

New and Nonofficial Remedies, published annually, is the book in which the Council lists and describes medical products deemed worthy of recognition by the medical profession. Each edition contains those products that stand accepted on January 1 of the current year. During the year, descriptions of newly accepted material are published in the New and Nonofficial Remedies department of The Journal, and later these descriptions are sent out in the form of a supplement to the purchasers of the current book. New and Nonofficial Remedies contains an insert which gives the names of proprietaries not included or regarding which The Journal has published information. Thus, the book is a veritable encyclopedia of proprietary medicines.

The Reports of the Council on Pharmacy and Chemistry are also published annually and contain reports of the Council adopted for publication during the year, most of which have previously appeared in The Journal. These reports were brought together in the Propaganda for Reform. There are two volumes of this book, the first containing the more important reports published before 1916, and the second containing those reports published between 1916 and 1922.

Useful Drugs is a concise but thorough and up-to-date discussion of the actions, uses and dosage of the more important drugs. A revision of the sixth edition of this book was issued in 1925, and a further revision, which will be ready in the fall of this year, has been made necessary by the issuance of the new U. S. Pharmacopeia and a new edition of the National Formulary.

The Epitome of the U. S. Pharmacopeia and the National Formulary presents those portions of these volumes which are of interest to physicians, and, in addition, gives a concise statement of the therapeutic usefulness of the drugs and preparations described. A new edition of this useful book is now in preparation.

THERAPEUTIC RESEARCH COMMITTEE

In the report for the last year it was pointed out that the Therapeutic Research Committee aims to aid the investigation of problems from the point of view of treatment; and that assistance extends in three directions: (a) the organization of therapeutic research requiring collaboration. (b)The support of investigations of problems of special interest to Council work. (c) The support of problems submitted independently. Regarding the last named category it was explained:

> Support of Problems Submitted Independently: This has taken the form of contributions toward the material expenses of investigations that were somewhat beyond the ordinary budgets of the laboratories of the investigators. Owing to the unusual inelasticity of department budgets, even relatively small grants are often of very material assistance to such investigations; and the encouragement that is given to the investigators by this recognition of their work is perhaps even more valuable, to their personal enthusiasm, and to their local support.

The committee decided to concentrate its support especially on this line, and inquired of the directors of 150 active university departments whether they were contemplating therapeutic problems that would be promoted by this support. The response was very gratifying. Fourteen eligible problems of high quality were submitted; one, however, too late for consideration. The requests totaled $3,350, and the full amount asked could have been used to advantage. As it was not available, the committee granted seven requests in part, and six in full, appropriating in all $2,375 for these grants. This was distributed as follows:

One grant at $300.
Four grants at $250.
One grant at $200.
Seven grants at $125.

Six excellent papers appeared during the year; three other papers are in press and five in preparation. The success has been such that the committee wishes to continue the policy this year.

THERAPEUTIC RESEARCH

The following is a list of the investigations conducted under the Therapeutic Research Committee and published during 1925:

1. The Chemotherapeutic Properties of a Substance with a Chain of Four Arsenic Atoms, H. G. Barbour, G. B. Ridout and D. Claydon, Journal of Pharmacology and Experimental Therapeutics, February, 1925.
2. The Respiratory Gas Percentages During Nitrous Oxide Anestresia in Dogs, Charles W. Greene and Hiram M. Currey, Archives of Internal Medicine, March, 1925.
3. The Distribution of Nitrous Oxide and Oxygen in the Blood of Dogs During Gas Anesthesia, Charles W. Greene, Archives of Internal Medicine, March, 1925.
4. A Consideration of the Clinical Value of Ephedrin. T. Grier Miller, American Journal of the Medical Sciences, August, 1925.
5. Blood and Symptomatic Changes Following the

Intravenous Administration of a Variety of Agents and Solutions, P. J. Hanzlik, F. De Eds and M. L. Tainter, Archives of Internal Medicine, October, 1925.

6. The Determination of Traces of Mercury. . The Sensitivity of the Qualitative Tests for Mercury. A new Method for the Detection of Mercury Sensitive to One Part in a Billion, Harold Simmons Booth and Nora E. Schreiber, Journal of the American Chemical Society. November, 1925.

THE CHEMICAL LABORATORY

The chemical laboratory has been engaged most largely in evaluating synthetics and drug preparations for the Council on Pharmacy and Chemistry and in analyzing nostrums for the Bureau of Investigation. In addition to this, however, several independent investigations were undertaken in 1925.

WORK FOR THE COUNCIL ON PHARMACY AND CHEMISTRY

The work which the laboratory is called on to do for the Council on Pharmacy and Chemistry on the new materia medica is becoming increasingly involved and difficult. Whereas formerly the average product submitted required mainly a careful inspection of its purity and assay, the new products present problems of chemical constitution of a new sort and a physical chemistry—particularly of colloids—in addition to the necessary assay methods. Most of the new products submitted to the Council have been examined, though the increasing number of manufacturers co-operating with the Council will make it impossible to examine all products without enlarging the laboratory personnel.

Among the products accepted during 1925, after investigation by the laboratory, were antimony thioglycollamide and antimony sodium thioglycollate; the interesting new arsenic compounds Solarson, Stovarsol and Tryparsmide; various bismuth compounds; the new dyes for cholecystography; mercury compounds; hexylresorcinol and resorcinol monacetate; a large number of silver preparations, and a xanthine derivative.

The laboratory has also examined products, the rejection of which by the Council has been based wholly or in part on the laboratory's findings.

WORK FOR THE BUREAU OF INVESTIGATION

The laboratory has continued to analyze nostrums for the Bureau of Investigation. "Patent medicine" analysis is much more complicated than formerly. During the past year, a number of the more recent synthetics have been detected as ingredients in various polypharmaceutic combinations. In each case it has been necessary to devise methods of determination before analytic data could be obtained. Not all of the scientific investigations that have been made have been published in The Journal, some of them simply having been made for the purpose of supplying data for the bureau's files.

INDEPENDENT INVESTIGATIONS

The laboratory has published articles on the examination of commercial brands of cinchophen, showing that all brands examined are satisfactory. Through this investigation the fact has been established that the sale price of certain proprietary products is from two and one-half to six times as large as the sale price of nonproprietary brands.

Two articles have been published on the results of an extended study of bismuth compounds. This work has shown in how unsatisfactory a state bismuth therapy must necessarily be, particularly when the composition of some of the preparations on the market is not even known by the manufacturers themselves. In some cases, manufacturers have changed the names of their products in order to comply with the findings of the laboratory.

Publication has been made of the results through a study of liquid petrolatum-agar mixtures, it having been shown that the amount of agar in some of these mixtures was only a fraction of the amount claimed.

One of the chemists attached to the laboratory has prepared a paper on the action of mercurochrome-220 soluble and other mercurials on yeast. This paper has been temporarily with-held from publication in order that a small amount of additional work may be done.

THE LABORATORY AND PHYSICIANS

Members and Fellows of the American Medical Association are making increasing use of the files of the laboratory, as is evidenced by the growing correspondence on chemical topics. Continued service has been rendered to The Journal and to Hygeia. It is gratifying to note how many of the answers to chemical queries, first published in The Journal, are subsequently abstracted or reproduced in other publications.

CONTRIBUTIONS TO SCIENTIFIC PUBLICATIONS

During the year, each of the chemists attached to the laboratory has contributed to scientific publications other than those of the American Medical Association. An article by Mr. L. E. Warren on "Bismuth Compounds Used in Syphilis" was published in the Journal of the American Pharmaceutical Association. Dr. J. B. Peterson described, in Industrial and Engineering Chemistry, a new and sensitive test for demonstrating the absence of citrates and tartrates in mixtures. The director of the laboratory, Dr. Paul Nicholas Leech, appeared before the American Pharmaceutical Manufacturers Association and presented an address on "Chemistry in the Service of Pharmaceutical Medicine," which later appeared in The Journal.

WORK IN THE FUTURE

The laboratory is now well equipped for the work in hand, and possesses practically all apparatus necessary. From time to time additional equipment will be added as new types of work are taken up or new methods of procedure come into use.

There is much important work that the laboratory would like to undertake which cannot be undertaken without a larger personnel than is now attached. It is intended, however, to go into the investigation of classes of new remedies from time to time in order to keep the medical profession informed of their status. This was done last year in a study of bismuth compounds and other products. The laboratory will also endeavor to report on the reliability of certain official (U. S. P.) preparations, particularly since the government is not so active in prosecuting as formerly, and since the findings of the U. S. Bureau of Chemistry are generally not available for publication.

The value of a chemical laboratory maintained by the American Medical Association is thoroughly demonstrated when comparisons are made between conditions existing in this and in other countries. Certain proprietaries are advertised abroad as possessing this or that chemical structure, whereas such advertising is not made in the United States when the composition of these proprietaries has been shown to be otherwise. Not infrequently, articles on new therapeutic agents appear in journals published in other countries, in which the chemistry is quite inaccurately given. American manufacturers seem to welcome suggestions from the laboratory of the American Medical Association. In some instances, improvements have been made or products have been withdrawn as a result of suggestions offered to manufacturers.

Forty new drugs and preparations were included in the last edition of the United States Pharma-

copeia; of these, thirty-one were already described in New and Nonofficial Remedies, and most of the tests and assays were worked out in the Association's laboratory.

THE SCIENTIFIC EXHIBIT

The Scientific Exhibit at the annual sessions of the Association has grown year after year, and the character of the material exhibited, as well as the methods and completeness of demonstrations, has constantly improved. At the Atlantic City session, personal demonstrations by distinguished leaders in American Medicine caused the hall of the Scientific Exhibit to serve as a gathering place for many interested groups to discuss advances in medicine.

At the last session, the Scientific Exhibit was marked by several unusual demonstrations. A co-operative exhibit arranged by members of the Section on Dermatology and Syphilology showed graphically the effects of syphilis. Under the auspices of a committee appointed by the Board of Trustees, a special exhibit on the heart was made at the Chicago session. At the Atlantic City session this committee, at its own expense, continued this exhibit, taking up new features, and great interest was manifested by those in attendance. The special exhibit on Morbid Anatomy, begun at the Chicago Session and repeated at Atlantic City, aroused such interest that the Board of Trustees has been convinced of the desirability of continuing this exhibit at every succeeding annual session where the necessary material can be secured.

The two special exhibits referred to above were not open to awards. Except in the educational classification—where work of organizations is exhibited—material presented in the Scientific Exhibit is presented in the name of the individual and not in the name of the institution where research on which the exhibit bears has been done, though the name of such institution always appears. Awards have been made to individuals. The report of the Committee on Awards appeared in The Journal, June 13, 1925, p. 1843.

The total number of exhibits at Atlantic City was sixty-five, and the total number of participants in the Scientific Exhibit 134.

BUREAU OF LEGAL MEDICINE AND LEGISLATION

The Bureau of Legal Medicine and Legislation endeavored throughout the year to keep in touch with federal and state legislation so as to enlist the support of constituent state associations in the federal field and to co-operate with them in their respective state jurisdictions. Senators and Representatives at Washington turn to the physicians of their own states for guidance and advice with respect to medical legislative matters. In this fact our state associations should recognize the full measure of their responsibility for state leadership and action with reference to legislation pending in Congress. This bureau is ready to do its part toward co-operating with state associations in the field of state legislation, but in such matters the initiative must ordinarily come from the state organization, which should recognize the fact that legislation enacted in any state may be urged as a precedent for the enactment of similar legislation elsewhere and is a matter of concern to every other state. Because of this common interest, state associations are urged to keep the bureau informed as to their legislative problems and their methods of solution, as only thus can each state association have conveniently available the experiences of other similar organizations. By interchange of experiences, which it is one of the functions of this bureau to promote, the state association can reduce to a minimum the occasions in which they acquire knowledge in the school of experience and in which knowledge often comes too late to be of practical value.

TAX REDUCTION

When it became apparent that a bill would be introduced into Congress providing for revision of the revenue act of 1924, the Bureau of Legal Medicine and Legislation immediately took action to enlist constituent state associations and other interested agencies in a movement to reduce the narcotic tax and to have written into the new act language specifically authorizing the deduction in the computation of physicians' income taxes, of traveling expenses incident on attendance to medical meetings, and of expenses of postgraduate study. The response was generally all that could be desired.

The Executive Secretary of the Bureau of Legal Medicine and Legislation and Dr. C. W. Richardson, of the Board of Trustees, appeared before the Ways and Means Committee of the House of Representatives, and, as a result of the activities of officers of constituent State Associations and County Societies and the presentation made before the Ways and Means Committee, the House of Representatives adopted a bill in which the narcotic tax was reduced to a one-dollar-a-year basis. At the time of preparation of this report, there is every prospect that the Senate will concur. It may be conservatively estimated that the reduction in the Harrison narcotic tax will save physicians registered at least $150,000 a year.

Efforts to procure favorable action with regard to deductions for traveling expenses and expenses for postgraduate study have so far been unavailing. In presenting to congressional committees and to the Treasury Department the plea of the Association for the right to deduct these expenses, it has been consistently contended that the medical profession asked only the insertion of a clause to correct an erroneous interpretation given to an existing law by the Commissioner of Internal Revenue, and no change in its substance. Although Congress was unwilling to afford this relief, it is still possible to appeal from the decision of the commissioner to the Board of Tax Appeals and to the courts. Such appeal, however, cannot be taken by the Association as such, but must be taken by an individual physician whose claim has been disallowed by the commissioner and who has been called on because of such disallowance to pay an additional tax. The Board of Trustees stands ready, through the Bureau of Legal Medicine and Legislation, to co-operate with any member of the Association who has in hand adequate evidence to support such an appeal, in carrying it to a conclusion, so as to establish a precedent on behalf of the whole profession.

NATIONAL PROHIBITION ACT

At its 1925 session in Atlantic City, the House of Delegates adopted resolutions with respect to the National Prohibition Act as supplemented, as follows:

RESOLVED, In view of the fact that such portions of the Volstead act and the amendatory acts may be declared unconstitutional, that, as a substitute therefor, regulations should be forthwith drafted by the Prohibition Department to the end that the present abuses may be abated, and existing prohibitions as to the practice of medicine removed; and that this Association use all means within its power looking to the preliminary approval of such regulations by the Prohibition Department and the Commissioner of Internal Revenue; and be it further

RESOLVED, That the Board of Trustees be directed to appoint a committee to co-operate with the Commissioner of Internal Revenue and the Secretary of the Treasury in the formulation of such regulations as under the National Prohibition Act, as amended, may

be necessary to carry said act into effect, so far as the medicinal use of liquor is concerned.

The Board of Trustees appointed, under the provisions of this resolution, the following committee: Dr. William H. Mayer of Pittsburgh, Dr. Alexander Lambert of New York, and Dr. Paul D. White of Boston. On the recommendation of the Executive Secretary of the Bureau of Legal Medicine and Legislation, the Board of Trustees, to unify the activities of the Association bearing on the National Prohibition Act, authorized this committee to deal with all matters arising under the act, with the understanding that the executive secretary of the bureau would co-operate. In addition to the matter of drafting the proposed regulations called for by the resolutions, the committee had before it an inquiry from the Assistant Secretary of the Treasury as to the advisability of reducing existing quantitative limits on the liquor obtainable for emergency use and of alcohol for other than external use. The report of this committee, including recommendations submitted to the Assistant Secretary of the Treasury, is appended to this report as a part thereof.

The Board of Trustees was requested to co-operate on behalf of the Association in carrying on the appeal in the case of Lambert v. Yellowley and others, now pending in the United States Supreme Court. The object of this suit is to have declared unconstitutional the quantitative limits on prescribing liquor as now laid down in the National Prohibition Act and in the act supplemented thereto, on the grounds that no authority has been delegated under the constitution to Congress to prescribe the use of remedies which qualified physicians believe to be efficacious in the treatment of disease. After careful investigation, the executive secretary of the Bureau of Legal Medicine and Legislation was authorized to join in this case on behalf of the Association as amicus curiae, if the consent of the court can be obtained or by signing a brief to be submitted to the Supreme Court. This case is still pending.

Two bills have been introduced into Congress to remove restrictions imposed by the National Prohibition Act and the supplementary act on the quantity of liquor prescribed and the number of prescriptions issued. The committee referred to above is keeping in touch with these bills and with others designed to amend the prohibition laws, as well as with prospective amendments to regulations. No bill has been introduced or any change in existing regulations suggested to limit the sale of medicinal liquor to bottled-in-bond packages. Such packages, however, can now be obtained in many drug stores. Physicians can do much to encourage a wide distribution of such packages by specifying that liquor prescribed by them shall be dispensed in bottled-in-bond packages, and by sending their prescriptions to drug stores where this can be done.

Various statements discreditable to the medical profession, made by representatives of the prohibition unit, implying the unlawful prescribing of liquor or of narcotics, and in one instance implying the widespread use of narcotics by local physicians, have been brought to the attention of the Prohibition Commissioner. The commissioner has investigated such complaints and when they have been found justified has taken action to prevent repetitions. The medical profession cannot object to publicity affecting a named physician who has violated the law or against whom charges have been brought; but until a prosecuting office is willing to prefer such charges or has proved them, it is premature for him to make any statement. Certainly it is unjust for any such officer to issue statements reflecting on the good name of the profession generally, when he is unwilling to name the physicians, if any, who he knows are offending.

NARCOTICS

Reference has already been made to the fact that through the activities of the Association the tax under the Harrison Narcotic Act will probably be restored by Congress to its prewar basis.

In May, 1925, the Commissioner of Internal Revenue undertook to require all physicians prescribing any of the so-called exempt narcotic preparations to register in class 5 of the Harrison Narcotic Act registrants, even though they were registered in class 4 and so had the right to prescribe narcotics generally. He conceived that one who prescribed a drug thereby "dispensed" it and therefore had to register under the provisions of the act, which requires persons "dispensing" exempt narcotic preparation to register. The proposed additional registration might have been effected without cost, but, had it been conceded that physicians who prescribe the so-called exempt preparations were required to register in class 5 as dispensers, it would have followed necessarily that they would be required to keep a record of every such prescription, even though not required to keep records of more potent narcotic drugs prescribed or dispensed. After an appeal and a hearing in Washington, the proposed compulsory dual registration was abandoned.

The drafting o fa model state narcotic law by a special committee of the National Conference of Commissioners on Uniform State Laws is still under way. At the last meeting of this conference a draft was submitted, but it returned to the committee for further consideration in view of criticisms offered by the Bureau of Legal Medicine and Legislation.

VETERANS' BUREAU

Treatment by the Veterans' Bureau of Diseases and Injuries Not Incurred in Military Service.—The House of Delegates, at its 1925 session, adopted two resolutions disapproving of the provisions of the World War Veterans' Act of 1924 granting to all veterans, regardless of financial need, the privilege of hospitilization and treatment at government expense for all diseases and injuries whatsoever. This action of the House of Delegates was based on the facts that the obnoxious provisions of the law operated to create a federal subsidy in favor of salaried physicians in the service of the government and in favor of government hospitals, and against physicians in private practice and in private hospitals, and tended to pauperize an independent self-supporting part of our citizenship. It was pointed out also that government bounties such as are provided for by the act impose unjustly an unneeded tax when the cost of government is already imposing an undue burden on the people. That the objections offered by the House of Delegates had a substantial basis is shown by the fact that, during the fiscal year following the granting of such bounties as are provided for in the act, 13,243 persons entered hospitals under the jurisdiction of the Veterans' Bureau for the treatment of diseases and injuries not related to military service. This number constituted approximately 17 per cent of the entire number of patients admitted to such hospitals. The cost of treatment administered to these patients was approximately $5,000,000. As veterans of various wars become better acquainted with the privileges granted them, and as with increasing years they become more subject to disease and infirmities of age, it may, of course, be confidently expected that the number seeking treatment for diseases, injuries and disabilities not of service origin will greatly increase. Moreover, because of the essentially chronic

nature of neuropsychiatric and tuberculous diseases, paralysis agitans, amebic dysentery and blindness, all of which, regardless of origin, entitle veterans to hospital treatment as a matter of right, a gradual accumulation of veterans hospitalized because of disabilities not originating in military service may be expected. On the other hand, patients hospitalized because of service disabilities may be expected gradually to decrease in numbers, and, in the natural course of events, the number of beds needed for service disabilities will diminish in proportion. The Veterans' Act of 1924, however, will operate to fill all beds as rapidly as they become available, with patients, rich and poor, suffering from civilian disabilities, and thus will perpetuate the existing medical corps and hospital system at their present strength, or operate even to enlarge them.

There is no evidence of any tendency to curtail the privilege of medical treatment at the expense of the government. Pending legislation proposes to extend such bounty to include outpatient treatment as well as the hospital treatment already authorized. If pending bills are enacted into law, the privileges of hospitalization and of outpatient treatment will be extended to Spanish-American War nurses, contract surgeons and contract dentists. Disabled ex-service men of the war between the states, including Confederate veterans, are to be entitled to hospitalization at government expense. Every disabled ex-service man will have not only hospital but medical treatment, nursing, and all necessary care. One pending bill proposes to grant similar privileges to civilian employes who served overseas during the World War. Obviously, if the government continues the course it has begun, a considerable part of the civil population will before long be receiving medical and surgical care at home and in the hospitals, at government expense, and communistic medicine under a federal bureaucracy will be definitely established.

Unless this objectionable law is repealed, or, at least, restricted in its operation to those unable to pay for medical and hospital service, the taxpayer must look forward to an increasing burden because of diseases, injuries and disabilities having no relation whatever to military or government service. Practicing physicians and hospitals must look forward to the withdrawal of a larger and larger part of their clientele by subsidized government physicians and government hospitals; and the states, which ordinarily would care for at least such of their sick and disabled as are not financially able to care for themselves, will find themselves relieved by the federal government of that duty and expense and will be tempted further and further along the road to federal vassalage.

It seems clearly time that a halt should be called on the course that has been begun. To that end, our state associations should bring the situation to the attention of their respective senators and representatives in Congress in order that intelligent action may be taken by them. Hearings have been requested on the pending bills that the American Medical Association may have opportunity to place its case on record before the committees having this matter in charge and before Congress.

Proposed Organization of Veterans' Bureau Medical Service.—Two bills pending in Congress proposing enlargement uf the Medical relief given by the Veterans' Bureau for diseases and injuries not of service origin provide for the establishment of a "commissioned" medical corps for this bureau. The combining of the two major proposals in one bill may engender a belief that the enlargement in medical work and the commissioning of a medical corps are but parts of a scheme to aggrandize the corps and to perpetuate its existence. The likelihood of such a belief arising is not lessened by the fact that approximately 17 per cent of the work of the medical personnel of the Veterans' Bureau during the fiscal year ended June 30, 1925, was apparently directed toward the relief of diseases and disabilities not of service origin and that if this essentially civilian work had not been thrown into the bureau by the Veterans' Act of 1924, the medical personnel and hospitals required might apparently have been already considerably reduced.

The proposed establishment of a medical corps for the Veterans' Bureau was originally conceived as a method of making the medical service of the bureau more attractive to physicians already in the service so that they might be induced to remain, and to physicians outside the service that they might be induced to come in. Commissions for such medical officers would tend to enhance their dignity and standing, increase the likelihood of adequate compensation, to provide longevity pay, and to assure retirement privileges in event of disability. Whether the establishment of such a corps would be of advantage to the people as a whole or to the medical profession is worthy of serious consideration. If a commissioned corps should be established in the Veterans' Bureau, it may be that a demand would soon develop for the organization of physicians in the Indian Service and in other government services where commissioned corps are not now in existence.

REORGANIZATION OF FEDERAL HEALTH ACTIVITIES

At the time this report is being prepared, three bills of somewhat similar purport are pending in Congress providing for the reorganization of administrative branches of the government, and information in hand appears to warrant the belief that at least one other bill will be introduced which may or may not be accepted as a substitute for one or all of those now pending. Insuperable difficulties have apparently been encountered in efforts to procure enactment of legislation laying down the details of reorganization. The pending bills seek, therefore, to evade such difficulties by vesting in the President the authority to make such changes as he may deem necessary. Two of these bills authorize the President to make only such changes as may be recommended by a "Reorganization Board" consisting of two senators, two representatives, and one member appointed by the President by and with the consent of the Senate. The third bill authorizes the President to appoint an "Advisory Reorganization Board," to consist of not more than ten members, and leaves him to determine the qualifications of appointees. This bill leaves the President free to accept or reject the advice of the proposed advisory board. In all three bills the President's authority and the tenure of the proposed boards are limited; by two until June 30, 1927, and by one until the expiration of two years after the passage of the act. The Board of Trustees through its Bureau of Legal Medicine and Legislation, is endeavoring to keep in touch with this proposed legislation.

FEDERALIZATION OF STATE HEALTH ACTIVITIES

The Sheppard-Towner Act became a law in November, 1921. Through this enactment, the sum of $1,240,000 was provided annually for five years ending June 30, 1928, to be used to pay the several states for enacting legislation for the promotion of the welfare and hygiene of maternity and infancy satisfactory to the federal government, for making preparations for carrying such legislation into effect, and for administering such legislation in a manner approved by the government at Wash-

ington. Operations under this act must lapse on June 30, 1928, unless the congress now sitting enacts a law to continue them in force. Such legislation may be enacted at any time before March 4, 1927.

Two bills are now pending in Congress to extend the system of federal subsidies to control state health and medical activities. One applies to rural health work, the other to the prevention and control of drug addiction, and both are essentially similar to the Sheppard-Towner Act, representing devices whereby the government at Washington secures from the states, through subsidies, portions of the state sovereignty guaranteed to them by the constitution. These measures are open to all the objections that have been raised against the Sheppard-Towner Act and similar measures providing government subsidies.

APPROVAL OF CHIROPRACTIC SCHOOLS BY THE U. S. DEPARTMENT OF LABOR

In July, 1925, attention was called to an announcement that the United States Department of Labor had designated a certain chiropractic school "as an immigrant school." By virtue of that designation, it was stated that aliens "will be allowed to enter the country without regard to quota, when enrolled at this school." Investigation showed that, even before this was reported, the Secretary of Labor had put the seal of approval of the United States government on ten other chiropractic schools for alien students. Such approval was apparently within his lawful discretion under the Immigration Act of 1924 if these schools were "accredited" schools, but otherwise not. The Immigration Act of 1924 defines the term "non-quota immigrant" as "an immigrant who is a bona fide student at least 15 years of age and who seeks to enter the United States solely for the purpose of study at an accredited school, college, academy, seminary, or university, particularly designated by him, and approved by the Secretary of Labor, which shall have agreed to report to the Secretary of Labor the termination of attendance of each immigrant student, and if any such institution of learning fails to make such reports promptly, the approval shall be withdrawn."

A circular of information, issued by the Department of Labor, Aug. 23, 1924, defined an approved school as "any accredited school, college, academy, seminary, or university which has been established for at least two years, and which has applied for and received the approval of the Secretary of Labor as a school for immigrant students. When a school is approved, the Department of State informs all American consular offices, and until so advised consular officers are not in a position to consider an intending student's application for a non-quota immigration visa." According to this circular of information, it is required by the Department of Labor that a non-quota immigrant shall regularly attend the school to which he has been admitted, and that if he fails, neglects, or refuses to maintain the status of a bona fide student, or if he is expelled, or if he engages in any business or occupation for profit, or if he labors for hire, he shall be deemed to have abandoned his status as an immigrant student and shall, on the warrant of the Secretary of Labor, be taken into custody and deported.

Chiropractic schools apparently were not slow to realize the advertising value of "approval" by the Secretary of Labor. "Approval" of a school means registration of that school in every United States consular office throughout the world as an institution of learning approved by the United States government. Although the Immigration Act of 1924 was not enacted until May 26 of that year, four of the known chiropractic schools in the United States had been approved by the Secretary of Labor before the end of the year and six more within the next six months, subsequent to which, one additional chiropractic school is known to have been approved.

Inquiry of the Department of Labor failed to show that any investigation was made of the plants and equipment of schools approved, or that any effort was made to check up by independent investigation the claims in their several applications for approval; nor, so far as available information shows, had any effort been made to see that the provisions of the law were duly complied with by school or student after approval. Inquiry as to the basis on which the Secretary of Labor determined whether a given school was or was not within the accredited schools developed the fact that the Department of Labor "has never definitely defined the term, and the application for approval of each school is considered separately and decided upon the showing made in its petition."

The situation here described seems deplorable, both from the standpoint of immigration and from the standpoint of education. Apparently, American schools teaching bizarre methods of healing can obtain the approval of the United States government without any difficulty, and that without any worth while inquiry into their fitness for teaching even the dogmas they profess. Such schools are then advertised by the government itself by registration with its consular officers throughout the world, and a school can then supplement that advertising by announcing itself as a school approved by the United States government. The result of all this will be that ambitious but ignorant foreigners, relying on the approval of the government, will come to the United States to study even the most arrant species of quackery, and, likely as not, may be duped in the process. It would seem that so long as the United States government continues to give approval to so-called institutions of learning so carelessly as it is now doing, we need not be surprised if American education and educators should fail to rise in the esteem of the nations of the world. It would appear to have been the part of wisdom for the Department of aLbor to postpone approval of schools for the admission of alien students until adequate provision had been made for educational advisers who could investigate the claims of schools seeking approval, through competent inspectors; who could determine whether or not approved schools lived up to the requirements, and whether or not students who entered conformed to the conditions of entry. Even now it would appear to be wise for the Department of Labor to see whether approval was given after adequate investigation. This matter is submitted to the House of Delegates for consideration.

MEDICAL DEFENSE

The Bureau of Legal Medicine and Legislation has continued its studies of the prevalence and causes of claims and suits against phsicians because of alleged malpractice and of the methods adopted by constituent State Associations for the prevention and adjustment of such claims. The result of a study of the activities by the several associations during the year 1924 was published in the Bulletin for November, 1925. Studies are being made of the by-laws of the constituent State Associations governing this matter as well as of group insurance policies issued by various indemnity companies. The results of these studies will be published from time to time as data in hand warrant, and it is hoped that these will be of value in aiding State Associations to profit by the ex-

periences of one another, and that they will also contribute toward the development of more or less standard methods of procedure.

It cannot be too strongly insisted that the prevention of claims based on alleged malpractice is the objective sought, and not merely the adjustment of such claims as arise or the indemnification of physicians against loss. Losses to the profession are equally great, whether a claim or judgment be paid by the physician or by the insurance company, and as claims increase, losses to the profession will also increase. If a claim or judgment is settled by the physician, he alone is the loser; if settled by the indemnity company, the profession as a whole—or at least the indemnified members of it—is the loser, losing not only the amount paid the claimant, but also the expenses of operation of the insurance company, together with such profits as the company earns on business of this class.

THE CULTS AND HOSPITALS

Inquiries from various sources indicate a determined effort on the part of sectarian practitioners to force their way into hospitals on an equal footing with physicians. Such effort has been made in California, Idaho, Michigan, Nebraska, New York and Wisconsin, based on claims of right under existing law, and in other states efforts have been made to gain admission to hospitals through legislation. Such legislation has attempted to penalize hospitals denying admission to sectarian practitioners, either by depriving them of state funds, if they are in receipt of any such funds, or by denying them the right of exemption from tax ation as charitable institutions. This situation merits the closest attention by our state and county organizations. The presence of sectarian practitioners in regular hospitals would constitute a disturbing element tending to destroy discipline among interns and nurses, and create dissatisfaction among patients. The attitude of cultists toward infection would tend to spread communicable diseases in hospitals. Every effort should be made, therefore, to prevent the accomplishment of the ends now being sought by them.

FEDERAL LEGISLATION

Congress enacted no legislation during the past year in which the profession was particularly interested. The one measure in which the American Medical Association was interested, designed to throw proper safeguards around the sale and use of concentrated lye, failed passage and was left in committee when the Sixty-Eighth Congress expired.

Many bills have been introduced into the Sixty-Ninth Congress and are still pending as this report is prepared. These include the proposed new revenue act, many bills to amend the National Prohibition Act, a bill to regulate interstate and foreign commerce in clinical thermometers, as well as bills which have already been referred to in this report and numerous others.

STATE LEGISLATION

Forty-two state legislatures were in session during 1925, and many bills affecting the interest of the medical profession and the public health were introduced. The Bureau of Legal Medicine and Legislation has been ready at all times to give assistance and advice to constituent state associations with reference to matters of legislation. It has done so whenever called on and has even volunteered when circumstances have come to its notice seeming to justify such action. Its activities have been handicapped, and its resources have remained to a regrettable extent unused, because of the apathy of some state associations and because of the inadequate legislative organization of some others. No constituent state association can adequately keep in touch with legislation pending unless it obtains copies of all bills introduced that have or may have a bearing on matters of interest to the profession. No state association can adequately support or attack proposed legislation unless it knows what the experience of other states has been with reference to similar measures. Without a current record of all legislative activities kept in some central office, no state association can ordinarily find out what the experience of other states has been in time for the information to be of practical value. The Bureau of Legal Medicine and Legislation is a central office in which the experiences of state associations should be recorded and through which such experiences should be made available to other states, but the bureau cannot serve in that capacity unless all state associations co-operate and file with the bureau copies of bills introduced in their respective legislatures, together with pertinent reports concerning them. When it is realized that legislation enacted in any state may be used as a precedent from which to argue for the enactment of similar legislation in other states, we can better appreciate the extent of our responsibilities for the character of legislation enacted within our respective state legislatures.

LYE LEGISLATION

The bill to regulate interstate and foreign commerce in lye and other dangerous caustics was still pending in committee when the Sixty-Eighth Congress expired. It has been introduced into the present congress, and its enactment into law is hoped for. The aid of state associations and county societies is solicited to the end that this may be accomplished. Laws patterned after the model bill approved by the Committee on Lye Legislation were adopted in Colorado, Minnesota, Nevada, New Hampshire, Oregon and Vermont during 1925. In West Virginia a law differing materially from the model law and from all othre laws regulating the sale of lye was enacted, under which the special labeling of all lye in packages suitable for household use is required. Special labels must now be prepared for Florida, Louisiana and West Virginia. Four kinds of labels are required for such packages, depending on the destination of the package. This adds to the cost of lye and other caustics to the consumer, because packers and distributors of such articles are required to label their respective stocks in various ways to meet the demands of various states. There are other important objections to having different requirements in different states. The label prescribed by the model bill has been carefully prepared and seems to meet the requirements of more states than any other label. It is the label, too, that is prescribed in pending federal legislation. It is earnestly hoped that states that may hereafter seek legislation to limit the distribution of lye and other caustics in packages suitable for household use will make the labels and procedures required to conform to the labels and procedures laid down in the model law and in the federal law. It is hoped, too, that states that have already adopted labels will appoint the federal law so as to make the standard label suffice for all. This seems to be due the manufacturers, packers and distributors of lye and other caustics, who have co-operated very earnestly with the American Medical Association in drafting legislation in promoting its enactment.

COMPENSATION FOR EYE INJURIES

To make effective the standard methods for determining compensation for eye injuries, adopted by the House of Delegates last year, the Bureau of

Legal Medicine and Legislation sent a copy to every state workmen's compensation board and to every insurance company engaged in casualty or in workmen's compensation insurance. A considerable number of requests have been received for additional copies, showing a widespread interest in the report of the committee. Up to this time no criticisms have come to the attention of the bureau.

SPECIAL PRIVILEGES FOR PHYSICIANS OPERATING MOTOR VEHICLES

Because of an inquiry received from the Medical Society of the District of Columbia concerning special privileges under traffic regulations for physicians using automobiles, an effort was made to ascertain the views of every state association to determine what local practices were. A summary of replies received was published in the Bulletin for October, 1925. Which shows no such uniformity of opinion as to justify action by the American Medical Association on a nationwide basis. It may be easily deduced from replies received that traffic conditions and the moods of traffic officers vary so widely in various places that each state association, and possibly each county society, must handle the traffic problem as a local one.

ZINC STEARATE

The committee appointed by the Board of Trustees to advise with espect to action that should be taken to prevent injury and deaths from the use of zinc sterate dusting powders held one meeting during the year, at which representatives of certain manufacturers, including the makers and sellers of powders and the makers of containers, were present. While the commercial interests named reported that they were making efforts to find some practical way to limit or prevent accidents, there was no satisfactory evidence of progress. The committee, however, agreed to certain features of a container for sinc stearate dusting powders as essential. These are: (1) that the container may be made wholly of metal; (2) that it be closed by a firmly attached metal cover; (3) that such metal cover shall have orifices as small as compatible with a reasonable discharge of powder; (4) that the metal cover be provided with a self-closing device which may be kept open only by a positive pressure, and (5) that the container have a prominent and clear precautionary statement advising that the package be kept away from infants and young children.

The Illinois State Health Department has issued preliminary announcement of its intention to promulgate regulations to put the foregoing requirements into effect, with certain specific restrictions.

As zinc stearate is practically a household commodity; the adoption of a suitable container and the observation of protective rules should be made by dispensers of zinc stearate powders in order to mitigate hazard to infant life. In addition to this, however, the committee feels that the use of zinc stearate should be discouraged by the medical profession, as evidenced by the replies of 35 leading pediatricians to a questionnaire submitted to them.

PUBLICATION OF IMPORTANT MEASURES IN ADVANCE OF ANNUAL SESSION

The following resolution was presented, on recommendation of the President and the Speaker of the House, by the Reference Committee on Reports of Officers at the Atlantic City Session, and was referred to the Board of Trustees:

RESOLVED, That all reports of officers, Councils or standing committees of this Association, and all resolutions dealing with questions of policy of the Association, shall be filed with the Secretary of the Association sixty days in advance of the annual session of this House, published in the Bulletin and mailed to every delegate at least thirty days before the annual session at which such resolutions or reports are to be considered.

Believing that the carrying out of the provisions of this resolution would result in more careful consideration being given to official reports and to resolutions dealing with questions of Association policy, the Board of Trustees has directed that reports should be printed in the Bulletin or in The Journal thirty days before the annual session; that the attention of members of the House of Delegates should be called to the resolution, and that they be requested to submit resolutions of memorials bearing on matters of policy to the Secretary of the Association sixty days before an annual session, and that such resolutions or memorials as might come into the hands of the Secretary shall be printed in the Bulletin or in The Journal within 30 days thereafter.

LISTING OF NAMES OF PHYSICIANS IN TELEPHONE DIRECTORIES

The House of Delegates at the Atlantic City Session adopted resolutions submitted by Dr. Wells Teachnor, Ohio, providing that a request be made of the American Bell Telephone Company to establish the heading "Physicians and Surgeons, M.D." for classified lists of physicians in telephone directories. These resolutions were modified by the House of Delegates to include companies affiliated with the American Telephone and Telegraph Company, as well as other telephone companies.

The Secretary of the Association communicated with the American Telephone and Telegraph Company and had one conference with one of its official representatives. The company signified its willingness to use the heading suggested for classified lists, but pointd out that it would be necessary to take the matter up with each individual telephone company, some of which have agreed to adopt the proposal. While these negotiations were in progress, it was ascertained that in some instances at least classified lists were considered as somewhat in the nature of advertising and that probably in some instances were made a source of revenue to telephone companies. It was also ascertained that some county medical societies are opposed to the publication of classified lists of physicians.

In view of these facts, the matter has not been further vigorously prosecuted, but the American Telephone and Telegraph Company has been urged to adopt, and to promote the general adoption of, the heading suggested in the resolutions referred to above for all classified lists of physicians in telephone directories.

LACK OF UNIFORMITY IN REPORTING DEATHS IN THE PUERPERAL STATE

At the Chicago Session in 1924, Dr. C. E. Mongan, Massachusetts, introduced a resolution providing that the American Medical Association "memorialize the Director of the Census Bureau to the end that the Director of the Census Bureau request the several states of the United States to follow the method, under the International Classification of Diseases, adopted by the Registrar-General of England and Wales, in reporting mortality rates in the puerperal state." The reference committee to which this resolution was referred recommended that the resolution be referred to the Board of Trustees with the request that inquiry should be made into the methods of recording and analyzing statistics of death incident to childbirth, and to take such action as may be necessary to make them represent truly the mortality from this case.

At the request of the Board of Trustees, the Secretary of the Association communicated with the Vital Statistics Department of the Bureau of the Census, which replied that death certificates from all parts of the registration area are edited in a uniform way and that the rates of one state are therefore comparable with those of another state.

It was pointed out that if the bureaus of vital statistics of the various states would follow the methods outlined in the Manual of the International List of Causes of Death and in the Joint Cause Manual, very close agreement would result between the figures compiled by state officers and those compiled by the Bureau of the Census, but that when international comparisons are made, serious difficulties are encountered, due to conflicting provisions of laws in effect in various countries. In Switzerland, for example, an excellent method of secret certification is in effect, which permits the physician to certify with the utmost accuracy and prevents any knowledge of the physician's certificate being secured by an outside party. This method of certification, however, is not in effect in other countries, in some of which necropsies are more frequent than in others. It appears, too, that in some countries a much greater proportion of death certificates are certified by physicians than in others. Methods of securing and of editing death returns in England and Wales and those found in use elsewhere were defined in the statement of the Bureau of the Census, in which it was pointed out that to adopt the English method simply because it produces a lower rate than some other methods would be unsound practice.

Other difficulties were pointed out in the communication received from the Bureau of the Census, but it was stated that a good start had already been made in the discussion of these matters, and that there is good reason to believe that international agreement will eventually be reached.

As the Bureau of the Census has indicated that discussion of the matters referred to in the Mongan resolution is being carried on between the United States and other countries, the Board of Trustees has not pursued this matter further.

FULL-TIME REPRESENTATIVE IN WASHINGTON

The Reference Committee on Legislation and Public Relations, in its report presented at the Atlantic City Session, urged that the Board of Trustees established a full-time representative of the Association in Washington, and the House of Delegates adopted the report. At the meeting of the Board of Trustees held, September 4, 1925, this matter was very carefully considered, after having been first considered by the Executive Committee of the Board at a regular meeting held July 3, 1925. In this discussion it was brought out that, according to their own statements, certain individual members of the House of Delegates had supported the report of the reference committee because they were not advised that the Association already had connections in Washington through which information could be gathered and contacts established for the purpose of safeguarding the interests of the medical profession as they might be affected through legislation. It was further brought out by members of the Board of Trustees who were familiar with the facts that previous experience had clearly demonstrated the inadvisability of maintaining full-time representation at the national capital. The Board of Trustees, having devoted its best thought to various factors involved, has arrived at the unanimous conclusion that it will not be in the best interests of the Association to carry out the suggestions of the Reference Committee offered at Atlantic City.

AFFILIATION WITH NATIONAL HEALTH COUNCIL

At a special meeting of the Board of Trustees held during the annual session in Atlantic City, Dr. Wendell C. Phillips, President-Elect, informed the Board that it was the desire of officers of the National Health Council to co-operate fully with the American Medical Association.

Dr. A. J. Lanza, Secretary of the National Health Council, appeared before the Board of Trustees at its meeting held in September, 1925, and presented a plan providing for the active affiliaction of the American Medical Association with the Nationac Health Council. This was referred to a special committee of the Board of Trustees with instructions to report at its November meeting. This committee recommended that the Board of Trustees notify the directors of the National Health Council that the Board would give careful consideration to a definite proposal which would involve active co-operation of the American Medical Association in the work of that council and which would insure the Association proper representation in proportion to its membership and influence in public health affairs. The recommendation of this committee was adopted, and the National Health Council was notified accordingly.

COUNCIL ON PHYSICAL THERAPY

Pursuant to the resolution offered by Dr. Joseph F. Smith, Wisconsin, and adopted by the House of Delegates at the Atlantic City Session, a Council on Physical Therapy was appointed at the September meeting of the Board of Trustees, with the following named members.

PHYSICISTS

Dr. W. R. Bovie, assistant professor of biophysics, Harvard University.

Dr. Arthur Compton, professor of physics, University of Chicago.

CLINICIANS

Dr. Ralph Pemberton, Philadelphia.
Dr. Harry E. Mock, Chicago.
Dr. George Miller McKee, New York.
Dr. A. U. Desjardins, Rochester, Minn.

PHYSIOLOGIST

Dr. W. B. Cannon, professor of physiology, Harvard Medical School.

PATHOLOGISTS

Dr. A. S. Warthin, department of pathology, University of Michigan.

Dr. Francis Carter Wood, New York.

This council met and effected temporary organization, October 16, and appointed committees to outlinc methods of procedure to be followed by the council. At a second meeting, held in January, 1926, progress was made toward permanent organization, and the council will be engaged in the discharge of the duties imposed on it within a reasonable time. It is believed that through this standardization of physical therapeutic methods and appliances, and that the interests of the medical profession and of the public will be safeguarded council a great deal can be accomplished for the and promoted. It is unfortunately true that physical therapy has fallen largely into the hands of enthusiasts and faddists and, to an undue extent, into the hands of those who are not far removed from the status of quacks. More and more, however, qualified physicians, following the lead of a few conservative investigators and practitioners, are turning their attention to this field and are persistently striving to put physical therapeutics on a rational, scientific basis. The character of the men who compose the newly established Council on Physical Therapy is a guarantee to the medical profession and to the public that the work of this council will be done fairly, fearlessly, and in a thoroughly scientific manner.

BUILDING AND EQUIPMENT

The building of the Association has been maintained in the best possible manner, and necessary repairs and improvements have been made as required in the older part. These have included the substitution of concrete for the wooden floor in the basement, additional storm sewer connections

to care for surface water, and increased sewage disposal facilities.

The equipment of the mechanical department, as well as of the office equipment has been maintained in keeping with former high standards. A new sixty-four page press—the largest the Association ever has owned—has been installed, and other equipment needed to meet increased demands made on the printing department has been added as necessary.

BUSINESS AFFAIRS OF THE ASSOCIATION

As will be seen from reports of the Treasurer and the Auditors, printed as addenda to this report, the financial situation of the Association is altogether satisfactory. Considerable economies were effected during the past year, which resulted in material savings. On the other hand, the work of practically every department of the Association was expanded, and effort has been made to meet all reasonable demands that could be complied with on a practical basis.

The record of work accomplished during the past year by the administrative personnel of the Association is one which reflects the loyalty, efficiency and devotion of the more than three hundred persons who comprise the working forces at Association headquarters.

E. B. Heckel, Chairman.
J. H. Walsh, Secretary.
Charles W. Richardson.
J. H. J. Upham.
Thomas McDavitt.
A. R. Mitchell.
D. Chester Brown.
E. H. Cary.
J. A. Pettit.

REPORT OF COMMITTEE ON SCIENTIFIC RESEARCH

NEW GRANTS

Since the last report, the following grants have been made:

Grant 76: $500 to Harry L. Huber, University of Chicago, for aid in a study of the chemistry of pollens and the chemical elements concerned in hay-fever and similar processes.

Grant 77: $500 to Arthur W. Yudkin, New Haven, Conn., toward an experimental study in the laboratories of Yale University of the formation of cataract and related ocular changes.

Grant 78: $400 to A. W. Meyer, Stanford University, to support study of polyneuritis caused by special diet.

Grant 79: $100 to Margaret S. Hoskins, University of Arkansas (now in the department of anatomy of the college of dentistry in the New York University) toward a study of the effect of thyroxin on animal growth.

Grant 80: $200 to Charles E. Simon, School of Hygiene and Public Health, John Hopkins University, to aid work on experimental measles, for which purpose grant 67, $100, and grant 73, $200, were made previously.

Grant 81: $100 to William G. Lennox, Harvard Medical School, for experimental study of epilepsy.

Grant 82: $200 to Victor Burke, department of bacteriology, State College of Washington, for investigation of the value of dye treatment of infections, for which purpose grant 75, $200, was made in 1924.

All these grants have been paid in full except grant 77, one half of which is unpaid, and in each case satisfactory work is in progress.

STATUS OF WORK

The status of work pending under new and previous grants is summarized briefly as follows:

Grant 39: $1,000 to E. O. Jordan, University of Chicago, for review of the literature on the influenza epidemics of 1918 and 1919, with synopsis of the results of value. This important work, undertaken at the invitation of the committee on the recommendation of Dr. George H. Simmons, is undergoing final revision for publication in book form. It is estimated that the cost of publishing 1,000 copies will be $2,000, which, no doubt, will be repaid in large measure from sales.

Grant 52: $400 to William H. Welker, University of Illinois, for chemical study of bacterial proteins. The results of the work under this grant are now in course of publication.

Grant 53: $300 to F. P. Underhill, Yale University, for the study of metabolism of inorganic salts. Results of the work under this grant have been published in the Journal of Biological Chemistry, and further publications may be expected. Of this grant, $270 was used to buy platinum crucibles, which remain the property of the American Medical Association.

Grants 55, 63 and 70: $600 in all to R. A. Spaeth, School of Hygiene and Public Health, Johns Hopkins University, to aid in a study of the influence of fatigue on infection. The results of this work have been published in the American Journal of Hygiene. Dr. Spaeth assumed the professorship of physiology in Chulalangkorn University in Siam, where he unfortunately died last spring from an infection contracted while on an expedition to collect materials for investigation.

Grants 57 and 61: $369.46 to Yandell Henderson, Yale University, for a kymograph. According to the rules, this instrument is the property of the Association, and a brass plate on the instrument so states. Several articles on the results of studies in which this instrument was used have been published.

Grant 62: $150 to A. C. Ivy, University of Chicago (now of Northwestern University), for study of the effect of amino-acids and amines on gastric secretion. This work has been completed and the results have been published.

Grant 64: $200 to E. R. LeCount, Rush Medical College, for work on tuberculosis and mitral diseases. This work is completed and part of the results have been published. The final publication will be made in the near future.

Grant 69: $400 to Linda B. Lange, School of Hygiene and Public Health, Johns Hopkins University, for an investigation of the role of diet in experimental tuberculosis. The work is well under way.

Grant 71: $400 to H. M. Evans, University of California, for work on the hormones of the hypophysis. The results of this work have been published in connection with Dr. Evans' Harvey Lecture in New York in 1924.

Grant 72: $250 to V. G. Jacobson, Albany Medical School, for experimental study of so-called implantation adenomas of the pelvic organs. This work has been completed and the results will be published in the February, 1926, issue of the archives of Pathology and Laboratory Medicine. Full account of the expenses has been made.

Grant 74: $300 to Thomas Addis, Stanford University, for work on compensatory renal hypertrophy. This work is in progress; preliminary reports of the results have been made; the final results will be published in a few months.

Grants 75 and 82: $200 each to Victor Burke, State College of Washington, for study of the effect of dyes in the treatment of infections. The results of the work in 1924 (grant 75) are about to be published; the work under grant 82 is well under way.

Grant 76: $500 to Harry L. Huber, University of Chicago, for the study of the chemistry of pollens and of chemical elements concerned in hay-fever and allied diseases. Active work is in progress.

Grant 77: $500 to Arthur M. Yudkin, New Haven, for experimental investigation of cataract and related ocular changes. An extensive study has been made of acqueous humor, the results of which the grantee proposes to present at the Dallas session.

Grant 78: $400 to A. W. Meyer, Stanford University, for study of polyneuritis from deficient diet. Interesting results are reported. The work is in progress.

Grant 79: $100 to Margaret M. Hoskins, New York University, for study of the effect of thyroxin on animal growth. This work is progressing satisfactorily, and the results will be ready for publication before long.

Grant 80: $200 to Charles E. Simon, School of Public Health, Johns Hopkins University, for work on experimental measles. Owing to the lack of suitable measles material, the work under this grant at present deals with Gye's claim that cancer is due to a filtrable virus in the presence of a substance supposedly specific for the animal species in question.

Grant 81: $100 to William G. Lennox, Harvard Medical School, for work on epilepsy. The work under this grant appears to be progressing satisfactorily.

FINANCIAL STATEMENTS FOR 1925

Balance to credit of committee, Jan. 1, 1925	$ 656.32	
Appropriation for 1925	2,000.00	
		$2,656.32

GRANTS PAID IN 1925

Grant 39, E. O. Jordan, balance	$ 400.00	
Grant 76, H. L. Huber	500.00	
Grant 77, A. W. Yudkin, one half	250.00	
Grant 78, A. W. Meyer	400.00	
Grant 79, M. S. Hoskins	100.00	
Grant 80, C. E. Simon	200.00	
Grant 81, W. G. Lennox	100.00	
Grant 82, Victor Burke (Washington State College)	200.00	
		$2,150.00
Balance to credit of committee		$ 506.32

Grant 77, A. W. Yudkin, unpaid balance	250.00
Unallotted balance	$ 256.32

APPLICATIONS ON HAND

A number of applications for grants are now being considered by the committee. Some of these are sought for the purposes of studies that are thought to be of great importance.

RECOMMENDATIONS

1. That the report of Dr. E. O. Jordan under grant 39 on the literature of the recent influenza epidemics be published in book form by the American Medical Association. The cost is estimated at about $2,000.

2. That provision be made for grants in aid of medical research on a larger scale than heretofore.

The applications now on hand, most of which may be regarded as meritorious, call for more than $12,000 for next year. If in certain cases annual grants of from $1,500 to $2,500 could be made, that in effect would be equivalent to fellowships in research. If the committee is charged with the administration of larger grants, it would seem desirable that no award be made unless first approved by the Board of Trustees on the basis of report and recommendations by the committee.

3. That provision be made for at least one annual meeting of the committee as well as for the clerical assistance necessary for the proper discharge of its responsibilities.

On the basis of applications on hand and the foregoing recommendations 2 and 3, the committee submits the following proposal for budget for the ensuing year:

PROPOSED BUDGET FOR 1926

1. Grants in aid of medical research	$12,000.00
2. Expenses for annual meeting of committee	600.00
3. Clerical help and minor expenses	600.00
	$13,200.00

Respectfully submitted,

Ludvig Hektoen, Chairman,
Committee on Scientific Grants.

Committee on Scientific Grants:

Ludvig Hektoen, Chicago, chairman, term expires 1926.
C. C. Bass, New Orleans, 1927.
Charles A. Frazier, Philadelphia, 1928.
Noble Wiley Jones, Portland, Ore., 1929.
Martin H. Fischer, Cincinnati, 1930.

REPORT OF COMMITTEE FOR THE PROTECTION OF MEDICAL RESEARCH

To the Board of Trustees of the American Medical Association:

At a meeting of the House of Delegates held at Chicago, June 2, 1908, Dr. W. R. Townsend offered a resolution recommending that the Board of Trustees establish a Council on the Defense of Medical Research. The resolution was carried.

The Trustees appointed, as members of the new Council: Walter B. Cannon, Boston, chairman; Joseph A. Capps, Chicago; Harvey Cushing, Baltimore; David L. Edsall, Philadelphia; Simon Flexner, New York; Reid Hunt, Washington, D. C., and Herbert C. Moffitt, San Francisco.

The Council organized at Philadelphia, November 7, 1908. It immediately began work in three definite and different directions: (1) investigating the conditions of animal experimentation and the opposition to it; (2) taking precautions against abuse of animal experimentation, and (3) diffusing information to correct misjudgments of the conditions and purposes of medical research, and to instruct interested people about laboratory procedures and the results of laboratory studies of disease. These lines of work were regarded as fundamentally important. Experience has proved the correctness of that judgment.

1. In studying the conditions of animal experimentation and the opposition to it, a nation-wide inquiry was instituted to learn about the methods of securing animals, the care of animals in medical schools, and the degree to which students are permitted to carry on independent experimentation. In order to learn about the opposition to medical research, the Council has through many years collected antivivisection literature and has on file a large amount of well arranged material gathered from antivivisection articles in lay periodicals and also in antivivisection journals. Knowledge of the active centers of agitation is thus well known and can be properly judged as to its influence and effectiveness.

2. In taking precautions against abuse of animal experimentation, the Council first collected from some of the older laboratories rules that had been formulated, laying down the precautions and expressing the spirit with which animal experimentation should be conducted. These rules were summarized and revised in such a way as to render them generally applicable. By the end of 1910 the revised rules had been adopted in practically all laboratories of medical schools in the United States. An inquiry sent out three years ago showed that the rules were posted not only in all medical school laboratories, but also in institutes of medical research and in many of the laboratories of state boards of health and of veterinary schools and colleges. Last year a move was instituted to have the rules accepted by laboratories of comparative psychology in which animal experimentation is being conducted. The widespread display of self-imposed regulations which define the precautions to be taken to avoid pain, and which represent the humane attitude of the persons engaged in animal experimentation, has been used very effectively during the last fifteen years to combat legislation aimed at non-professional control of medical research. The fact that the experimenters themselves had already taken the precautions which the bills commonly proposed has done much to dispel the suspicions aroused by antivivisection propaganda.

A further move in the direction of allaying suspicion was taken by the committee in 1921, when it secured the adoption of the "open door policy." In accord with this policy, laboratory officials throughout the United States publicly declared their willingness to admit at all times representatives of humane societies in order that the latter might become acquainted with the actual conditions under which animal experimentation is being carried on. In some instances the provision was made that visitors must have previously seen an operation on a human being in order to be able to appreciate the humaneness of laboratory methods. In 1922 the Blue Cross Society, an organization for the humane care of animals, widely circularized excerpts from the letters of deans and directors of laboratories, testifying to the enforcement of the rules for regulation of animal experimentation and to the maintenance of the open door policy.

3. The third line of work undertaken by the Council was that of diffusing information regarding the nature and results of the laboratory study of disease. This was done primarily by means of a series of authoritative articles, prepared by experts in their several fields, showing the relation between animal experimentation and the practical aspects of medicine and surgery. Twenty-nine articles

were prepared, some of a general summarizing nature, but most of them having the special character just mentioned. They have proved a highly valuable source of information for all persons who have had to deal with legislative committees or with the general public. On these articles have been based many instructive papers which have appeared in lay journals, as, for example, the influential articles by Mr. Ernest Harold Baynes.

The Council, established as a separate body in 1908, became a subcommittee under the Council on Health and Public Instruction in 1910. When that council was abolished in 1923, the Committee for the Protection of Medical Research was continued as a committee of the Board of Trustees.

During the many years of its existence, the membership of the committee has largely changed. At present, it consists of Dr. Simon Flexner, New York; Dr. George W. McCoy, Washington, D. C.; Dr. William Ophuls, San Francisco; Dr. William Pepper, Philadelphia; Dr. A. J. Carlson, Chicago, and Dr. W. B. Cannon, Boston. It will be noted that in this committee, just as in the first committee, the country is widely represented. The purpose of this scattered membership is to have representatives in various sections of the country where hostile agitation may result in attempts at legislative restrictions. Since their first appointment, members of the committee, either by local organization or by collective action, have repeatedly opposed attempts at restrictive measures in the legislatures of Massachusetts, New York and Pennsylvania, occasionally in Maryland, Minnesota and California, and also in the United States Congress. They have also aided in defeating attempts to secure popular legislation by use of the initiative in Colorado, and twice in California. Every victory won has made subsequent victories easier.

As a consequence of the efforts of the committee during the last seventeen years, it may be fairly stated that medical research involving use of lower animals is now well safeguarded. We are assured that the laboratory procedures are conducted carefully, so that discomfort and pain are minimized. The public suspicion has been allayed by the adoption of humane regulations and by the declaration of the open door policy. The public has been made aware of the great benefits to mankind which have come through laboratory investigations. The fundamental work done about fifteen years ago laid a basis on which effective defense of research could be conducted. The work in recent years has been chiefly that of watching carefully the activities of the antivivisectionists, and bringing our forces into action wherever action was prudent. So uniformly successful have we been in defeating attempts to interfere with research that the danger of interference has become less and less as years have passed.

In 1921, there was established in Boston a committee of laymen for the protection of medical research. This was the expression of an interest which the committee of the American Medical Association had been considering for nearly ten years. The Boston committee developed later into the organization called the Friends of Medical Progress, later renamed the Association for Medical Progress, with headquarters in New York City. A good deal of the burden of carrying on public instruction and defeating dangerous legislation will probably be carried in future by this organization of laymen.

Since I have been chairman of the Committee for the Protection of Medical Research in its various relations to the American Medical Association since its first establishment in 1908, and since, in my opinion, it would be wise for a younger person to assume the chairmanship and carry on the activities which I have been engaged in during the last seventeen years, I respectfully request that another chairman be appointed in my place.

Walter B. Cannon, Chairman, Boston.

Committee:

J. A. Capps, Chicago.
William Ophuls, San Francisco.
William Pepper, Philadelphia.
Simon Flexner, New York.
George W. McCoy, Washington, D. C.

REPORT OF COMMITTEE TO CO-OPERATE WITH THE COMMISSIONER OF INTERNAL REVENUE AND THE SECRETARY OF THE TREASURY

To the Board of Trustees:

Your committee appointed to co-operate with the Commissioner of Internal Revenue and the Secretary of the Treasury in drafting regulations to govern the distribution of medical liquor and vested with the general duty of advising the Board of Trustees with respect to policies in relation to the National Prohibition Act begs to submit the following report:

Your committee has held three meetings; has conferred with the Assistant Secretary of the Treasury in charge of prohibition; has conferred with Joseph S. Auerbach, Esq., counsel for Samuel W. Lambert in the pending test case in the U. S. Supreme Court; and has done much work in correspondence. On the basis of these studies of the situation it begs to submit the following recommendations:

1. That the following regulations be approved by the Board of Trustees to govern the prescribing and dispensing of liquor in event the quantitative limitations under the National Prohibition Act as amended be declared unconstitutional by the U. S. Supreme Court:

(a) Any physician prescribing more than one pint of liquir in thirty day to the same patient shall issue a certificate to accompany said prescription and be necessary to its validity, that the excess prescribed for is in the judgment of the prescribing physician a medical necessity; and the prescribing physician shall forthwith mail or deliver a copy of said certificate to the prohibition administrator of the district in which said prescription is to be filled.

(b) That any person to whom a pharmacist delivers liquor called for by any prescription be required by the pharmacist to pledge himself in writing on the prescription blank, that, so far as lies in his power to prevent it, no part of any such liquor will be used for other than lawful medicinal purposes.

The following proposed regulations and one other were submitted to General L. C. Andrews, Assistant Secretary of the Treasury in charge of prohibition. Under date of February 12, 1926, General Andrews wrote:

These proposals have been considered by my assistants and myself and we are satisfied that their immediate promulgation, following a decision of the Supreme Court which overthrows the existing law, will be most helpful. This applies to the first and second proposed regulations, and I hereby notify you that these two suggestions will be embodied in our regulations unless your Association, after its consideration of your (this committee's) report, recommends regulations other than these, in which case we will gladly give them prompt consideration.

2. That the following proposed legislation be approved by the Board of Trustees, for enactment by Congress:

That it be made unlawful for any person to seek to obtain liquor for medicinal purposes by false representation of by concealment of material facts.

The foregoing was submitted to the Assistant Secretary of the Treasury with a view to its pro-

mulgation as a regulation. The Assistant Secretary, however, wrote:

. . . this suggestion cannot be embodied in regulations as it is clearly a matter for legislation. I have submitted it as a suggestion to the committee that is now engaged in framing recommendations for further legislation, and it will be included in these recommendations if this legislative committee feels that it can be advantageously presented to Congress at this time.

3. That suggestions be made by the Assistant Secretary of the Treasury for the reduction of the amount of liquor allowed physicians for emergency use and of alcohol allowed physicians for other than internal use be approved in the following terms:

(a) That the allowance of spirituous liquor to physicians for emergency use be reduced so as not to exceed normally two quarts annually, not more than one pint to be purchased by the physician at any one time; and that the amount of alcohol allowed physicians for other than internal administration be reduced so as not to exceed normally more than three gallons annually to any one physician: Provided, however, that prohibition administrators be empowered to authorize larger allowances, both annually and in the quantity purchase at any one time, in the case of any physician who submits to the prohibition administrator within whose jurisdiction he practices satisfactory evidence to show that the nature and extent of his practice are such as to make such larger quantities necessary.

4. That proposed legislation, now being offered Congress, imposing heavy penalties for forging or counterfeiting physicians' prescriptions, etc., be approved by the Board of Trustees.

5. That the purchase by the government of the whole supply of medicinal whisky in the United States, reported to be under consideration by Treasury prohibition officials, be endorsed by the Board, as in harmony with principles already adopted by it, namely:

(a) That the federal government establish throughout the United States depots and subdepots for dispensing liquor on physicians' prescriptions and to physicians for medical and scientific purposes, it being understood that any pharmacy or other place where liquor may lawfully be dispensed under state law may be designated as a government subdepot.

(b) That the dispensing of liquor on physicians' prescriptions and to physicians be restricted to such depots and subdepots and to such other government agencies as Congress may establish.

(c) That the government see to the purity of all liquor dispensed at government depots and subdepots and guarantee the quantity in each container.

6. That pending the purchase and distribution of liquor by the government, legislation be enacted or regulations promulgated requiring the distribution of liquor for medicinal use by retail pharmacists to be in bottled-in-bond packages.

7. That the Committee on Prohibition with the co-operation of the Bureau of Legal Medicine and Legislation, be authorized to co-operate in the framing of legislation to carry the foregoing recommendations into effect, and to appear before the proper committees of Congress in support of the legislation thus prepared, so far as such action may be deemed by the committee not inconsistent with its present co-operation with the Assistant Secretary and with Mr. Auerbach.

William H. Mayer, Chairman.
Paul D. White. Alexander Lambert.

REPORT OF COMMITTEE ON DISASTER RELIEF

This is an outline of a plan for immediate medical relief, by the American Medical Association in cases of disaster.

The reason for suggesting this is the confusion and often breakdown that occurs immediately after any large disaster, before the established state and national organizations which properly take charge of such situations arrive on the scene. This immediate difficulty is due largely to the fact that, except in the larger centers, there is apt to be no organization or individual with any authority for taking charge of these situations and directing the immediate work of medical relief. The suggestion of this plan has been made by medical officers of disaster relief of the American Red Cross with the hope that through it these immediate difficulties can be overcome and that co-operation with the Red Cross can be made more effective.

The purpose of the suggested organization is to provide an organization that can immediately function in the case of disaster by reason of its having a medical man designated in each county of the country who shall be deputized by the American Medical Association to act at once in organizing and directing immediate medical relief. He is to assume direction of medical relief until the properly constituted authorities or other recognized state or national organizations arrive and assume charge. It is not intended that this organization shall take permanent charge or that it shall take over the functions of the bodies provided by the state and federal governments, including the Red Cross. The function of this organization is primarily to furnish immediate medical relief in the interval before the usual organizations arrive. After their arrival, this organization is expected to put itself under their direction or control or cease to function, except in the unlooked for situation where the organizations properly looked to so fail to meet their obligations that independent action is necessary to prevent suffering. It is to be hoped, and it is our expectation, that this organization will be able to co-operate both before and after their arrival with the state and federal organizations for relief, and with the Red Cross.

It is not the function of this organization to take charge of railroad disasters or of any other sort of industrial disasters where the corporation involved has its own organization to act immediately in these disasters. The function of this organization, in short, is not to take over medical relief in situations in which organized machinery to take care immediately of disasters already exists. The purpose of this organization is to provide systematic direction for relief only in those situations in which, for the time being, no adequate organization exists for performing this function.

The plan particularly has in mind disasters of such magnitude that they temporarily break down the ordinary machinery of the community for medical relief and call for the sudden mobilization of the medical profession of the community in order to cope with unexpected situations. The necessity for this may arise in a city as well as in a small community.

The essential thing in such a plan is that there should exist potential machinery that can immediately be called on to act in the event of disaster. Disasters such as would call on this organization are fortunately so rare that any special organization that existed for this purpose alone would be very difficult to keep alive because of lack of demand for its services. It would seem, therefore, that the best plan would be to attach this function of disaster relief in each community to one of the regular officers of the constituent societies of the state medical Associations. The officers on whom it would seem best to put this responsibility are the presidents of the local societies. They are representative men in their towns and counties, are chosen heads of the profession and, in the nature of things, have its confidence.

The plan, then, would be that the American Medical Association should direct that immediate supervision of disaster relief, until taken over by

the proper organizations, should be a function of its officers as follows:

In counties: the president of the county medical society. Where more than one county is represented in a single medical society, the director of disaster relief should be president of this society.

The state director of disaster relief should be the president of the state society.

The national representative of the American Medical Association for disaster relief, it would seem, should be some one who is in the headquarters of the American Medical Association and, who, therefore, could always be reached promptly. And it would seem that the proper officer to represent the Association as director of disaster relief should be the general manager or secretary of the Association, who should act, as far as possible, with the aid and advice of the President of the Association.

The functions of the county or local director of disaster relief would be to assume charge—act as captain—in systematizing, directing and controlling activities in immediate medical relief. He should feel that he is responsible for the direction not only of the local members of the profession but also of volunteers who come in. The great difficulty in these situations is that no one under present conditions feels that he can with propriety assume direction. Under this plan the president of the county medical society not only could with propriety assume direction but should be expected to do so by the members of the profession.

The president of the county or district society should be allowed, if he wishes, to deputize the direction of relief to another member of the profession of his choice. If he does this it should be done formally and publicly, and this act should give his deputy full authority to act in his place.

The functions of the president of the state medical society as state director of disaster relief should be expected to do so by the members of the profession.

The president of the county or district society should be allowed, if he wishes, to deputize the direction of relief to another member of the profession of his choice. If he does this it should be done formally and publicly, and this act should give his deputy full authority to act in his place.

The functions of the president of the state medical society as state director of disaster relief should be to see that the presidents of the county societies live up to their responsibilities, to co-operate with them in every way possible, and to act as a central officer through whom, in necessity, the national director of disaster relief or any outside organization could take up matters, particularly matters that they desired to bring to the notice of the members of the profession as a whole.

The national director of disaster relief should have functions similar to those of the state directors of disaster relief for the country as a whole.

The Secretary or the General Manager of the Association as national director of disaster relief and the presidents of the state societies as state directors of disaster relief should be liaison officers between the national headquarters of the Association, state headquarters and the component county societies.

An immediate function of theirs, in case this plan is adopted, would be to see to it that the presidents of the local societies and the profession of the country become acquainted with this plan of organization for disaster relief, and that in the event of disaster the president of the local society is to be looked to as the director in charge of medical relief until the proper authorities appear to take control.

This information should not only be given on the adoption of the plan, but should be repeated from time to time, until the plan becomes a tradition and in disaster the profession and the public come naturally to expect the president of the county medical society to take immediate charge and to expect the medical profession to act under his direction as long as the immediate necessity exists. To this end, information of this plan should be promulgated repeatedly through The Journal of the American Medical Association, through the American Medical Association, through the state medical journals and societies, and by such other means as may be effective.

William Allen Pusey.
W. D. Haggard. Wendell C. Phillips.

REPORT OF THE JUDICIAL COUNCIL

To the Members of the House of Delegates of the American Medical Association:

The Judicial Council has held two meetings in Chicago since the last Annual Session. At each of these meetings consideration was given to many matters of varied character presented to the Council by officers of constituent state associations and of component county societies, by individual members, and even by independent organizations. In every instance, where matters presented came within the jurisdiction of the Council, action was taken or a ruling was made. In other instances where thought advisable, the Council offered suggestions that were intended to be helpful. As heretofore, in the interim between meetings of the Council, a mass of material has been dealt with through correspondence.

DEFINING CONTRACT PRACTICE

Because of many inquiries received, it has been thought necessary to define the term "contract practice." The following definition, arrived at after very thorough consideration and prolonged discussion, is presented for the consideration of the House of Delegates:

By the term "contract practice," as applied to medicine, is meant the carrying out of an agreement between a physician or group of physicians as principals or agents and a corporation, organization or individual, to furnish partial or full medical services to a group or class of individuals for a definite sum or for a fixed rate per capita.

DEFINING ALLIED SCIENCES

At the request of the secretary of a constituent state medical association, and because of conditions that seem to exist to a greater or less extent in all states, the Council has attempted to define the term "allied sciences" as used in the Constitution and By-Laws. The definition presented below, although arrived at after thorough consideration, will perhaps not be found as explicit as may be desired. This is in large measure due to the fact that there has been a great increase in the use of physical apparatus and a great growth of knowledge in the fields of medical chemistry, physics, physiology, roentgenology, etc. Thus has been brought about a closer alinement of physicians and of students and workers in these various fields and a correlation of effort for the development of medical science and the application of new discoveries in general science.

By the term "allied science," as applied to medicine, is meant those subdivided by general science that are held by teaching institutions of standing and reputation conferring the degree of Doctor of Medicine to have a place in the professional education and training of a physician.

SOLICITATION OF PATIENTS THROUGH SO-CALLED HEALTH ASSOCIATIONS OR HOSPITAL ASSOCIATIONS

A number of communications have been received during the year concerning questions of ethics in-

volved in the organization and operation of so-called health associations or hospital associations which, through paid solicitors or otherwise, solicit members. These "members" are, of course, prospective patients. The general plan being used by these groups embraces the payment of nominal membership dues, for which medical and surgical services, or in some instances medical, surgical and hospital services, are promised when needed. The Judicial Council has not been able to arrive at any definite conclusion with respect to the motives behind the organization of some of these groups. It is of the opinion, however, that in some instances promises are made that cannot be carried out because it is utterly impossible for adequate medical service, to say nothing of surgical and hospital service, to be delivered for the sum realized through the collection of nominal membership dues. The Principles of Medical Ethics of the American Medical Association specifically condemn the solicitation of patients whether by individual physicians, by groups, by institutions, or by organizations of physicians. The Judicial Council is of the opinion, therefore, that, so far as these health or hospital associations are organized for the purpose of soliciting patients, they are distinctly unethical. It goes without saying that for any organization of any kind to offer for an agreed stipend more than the reasonable worth of that which is offered is wrong in principle, and physicians should guard themselves against being connected with such organizations.

It has also come to the attention of the Judicial Council that lay groups have in some instances organized or have sought to organize their members into so-called health associations. Their purpose, as frankly stated, is to secure a reduction in the cost of medical, surgical and hospital service to their members. So far as such organizations may be actuated by motives designed to reduce the cost of medical service to themselves below a sum at which adequate service can be rendered by competent physicians, they are, of course, based on misconception and will bring about results disastrous to their own members. The Judicial Council, while mindful that an occasional physician may be thoroughly commercialistic and may make unjust charges, does not believe that the reputable medical profession as such can be justly accused of imposition and extortion. The cost of medical service has undoubtedly increased, but it is believed that this increase has not been by any means proportionately as great as the increased cost of living commodities, or of labor, or of services rendered by the members of other professions. The individual physician who drags pure commercialism into the practice of medicine or who extorts undue fees from his patients brings reproach on the whole profession and should receive the censure that is due him; likewise, he who bargains to furnish medical service to groups at rates below a fair value of the services rendered. The honest and competent physician who is interested in maintaining honored traditions and who is in the practice of medicine as a profession should receive such compensation for his services as will enable him to maintain himself and his family in comfort and to make provision against the time when he cannot keep up professional activities.

UNETHICAL CO-OPERATIVE PROJECTS

Several proposals looking to the organization of groups of physicians in co-operative projects have been submitted to the Judicial Council. In most instances these have been in the nature of stock selling and stock holding schemes whereby physicians interested would realize on investments in proportion to the amount of work referred by them to the "clinic" or laboratory operated under the particular scheme. After its examination of these proposals, the Council has concluded that nearly all of them appear to be open to the criticism that they are, or may be suspected of being, essentially fee-splitting projects. The Council, therefore, has refused to give its approval to joint stock companies of physicians organized for the purpose of operating clinics or laboratories with the stock owned in part or in whole by physicians connected only as stockholders.

STATUS OF PHYSICIANS OF THE VETERANS' BUREAU

A letter from B. W. Black, Acting Medical Director of the United States Veterans' Bureau, and resolutions adopted by the Medical Officers' Association signed by Justus M. Wheate, M. D., chairman of its executive committee, were referred by the House of Delegates to the Judicial Council. The letter and resolutions had to do with the status of physicians in the employ of the United States Veterans' Bureau, whose assignments are, or may be, frequently changed and who are not now members of the American Medical Association. These physicians seek to secure membership in the Association without affiliation through component medical societies and constituent state medical associations. Under the provisions of the By-Laws, physicians generally, not engaging in practice, may retain membership in component county and constituent state associations in which they originally held such membership even though their assignments may require temporary residence for relatively long periods in various locations. There is no provision in the By-Laws of the Association for admitting physicians in the service of the Veterans' Bureau to membership in the American Medical Association other than through membership in the component county society and in the constituent state association. The Judicial Council would recommend, therefore, that these physicians continue their membership in the county societies and state associations of which they were originally members.

Respectfully submitted.

M. L. Harris, Chairman. W. S. Thayer.
J. N. Hall. G. E. Follansbee.
F. W. Cregor. Olin West, Secretary, ex officio.

REPORT OF THE COUNCIL ON MEDICAL EDUCATION AND HOSPITALS

To the Members of the House of Delegates of the American Medical Association:

The successful functioning of this Council has demonstrated the beneficial results of the basic principle in democratic countries—government by the governed. The great improvements in medical education were made possible through the splendid but voluntary co-operation which the Council received from the better medical schools. Through such voluntary co-operation, also, greater actual progress was made than could have been possible had the Council been clothed with legal powers. Under legal power the service rendered is usually merely sufficient to comply with the legal requirements, whereas with voluntary co-operation the services rendered are much more extensive and complete.

Following the lead of the medical profession in the provision of lists of approved medical schools, other lines of general and professional education through voluntary agencies have likewise brought out lists of approved colleges of arts and sciences, law schools, dental schools, etc.

As no national legal control has been established

over general or professional education and, as the state laws have widely differed or, for other reasons, have failed to function, it was but natural and proper that control should be assumed by voluntary agencies made up of those expert in the various fields. In the efforts to put its own house in order, the medical profession, through the work of this Council, has secured greater improvements than were considered possible at the beginning of the campaign.

THE COUNCIL'S APPROVED LISTS

The tremendous influence being exerted by the organized medical profession through this Council in the fields of medical education and practice, may be appreciated by noting the six lists of "approved" institutions now being maintained by the Council on Medical Education and Hospitals. These lists are:

1. Medical Schools—A marvelous improvement has resulted from the publication of the classification of medical colleges during the nineteen years since it was established. Whereas, in 1907, only 294 physicians graduated from high standard and well equipped medical schools, or 59 per cent of all graduates, there were in 1925, 3,852, or 96.2 per cent of all graduates, who came from these higher type medical schools. Prior to the publication of this list, prospective medical students had no means of knowing the character of the institution they were intending to enter.

2. Graduate Medical Schools—As a result of the investigations on which this list is based, there are now eighty-six institutions, including forty-eight graduate medical schools and thirty-eight hospitals, which are known to be places where physicians can secure satisfactory courses in graduate medical education. This is a sharp contrast with conditions only ten years ago (in 1916), when there were only twenty so-called postgraduate medical schools whose courses were of unknown quality.

3. Hospitals Approved for Interns—In 1914, there were only 603 hospitals that were using or willing to use interns, providing places for only 2,527 interns each year—not nearly enough for the 3,594 graduates in that year. The hospitals were not inspected and the opportunities of clinical training available for interns in most of them were unknown. Now, however, through inspection, it is known that greatly improved opportunities for interns are available in 562 hospitals which provide internships for 4,683 graduates.

4. Hospitals Approved as Reputable—Since 1905, positive evidence has been received showing that unethical practices were being carried on in certain hospitals by members of their staffs. The names of these institutions, as positive evidence is received, are being eliminated from the lists of hospitals published in The Journal of the American Medical Association and in the American Medical Directory. Since 1920, when all the Association's work in connection with hospitals was definitely turned over to the Council, investigations of hospitals have been conducted in a more routine and efficient manner. As a result, the list of approved institutions is more reliable and complete. With the increased financial provisions for the Council's work with hospitals, just made by the Board of Trustees, the elimination of still other unfit institutions can be brought about. The educational function of all hospitals, it is believed, can also be developed.

5. Approved Colleges of Arts and Sciences—In 1914, when "a year of college work was required for admission to medical schools, little was known in regard to which of the thousand or more liberal arts colleges in this country were worthy of bearing that name. In 1915, a list of such colleges was compiled, based on lists of those approved by the Association of American Universities and the North Central and Southern Associations of Colleges and Secondary Schools. These associations had the standards and the machinery with which to prepare satisfactory lists, and the Council, by publishing their lists, has made this information available for the deans of medical schools, as well as for prospective medical students. Now, the associations of colleges on both Atlantic and Pacific coast states have also established approved lists, so that the names of all worthy liberal arts colleges in all parts of the country are being published by the Council in a special pamphlet. Until a few years ago the Council's pamphlet was the only one published which gave this complete list of the approved colleges of arts and sciences.

6. Clinical Laboratories—An approved list of clinical laboratories is now in its formative stage, and the work is well under way. This list will include laboratories which, after investigation, are known to be reliable and reputable and will tend to eliminate those which are poorly equipped, unreliable or unethical.

THE YEAR'S PROGRESS IN MEDICAL EDUCATION

There still remain eighty medical schools in the United States, as the new University of Rochester School of Medicine has taken the place of the General Medical College of Chicago, which closed its doors in 1924. The enrolment of students still continues upward, there being enrolled this year approximately 18,560, an increase of 360 students over the enrolment of 1925. An estimate indicates also that there will be about 4,020 graduates this year, or about forty-six more than in 1925.

Reports still persist that properly qualified students are unable to secure enrolment in medical schools. It is evident that the situation is exaggerated, as students seeking admission make application to two or more institutions, whereas each one can occupy only one place, and thus numerous vacancies occur after the session begins. As reported a year ago, after the enrolments were completed, 1,355 vacancies still remained, of which more than 200 were in the freshman class. An investigation is now being carried on in an attempt to ascertain whether any well qualified students, holding grades above the average, has actually failed to gain admission to some class A medical school. There are probably some students who wish to enter some one medical school and prefer to wait a year rather than enroll elsewhere. There are others, evidently, who cannot afford to go to medical schools outside of their home cities.

MEDICAL STUDENTS WHO DO NOT GRADUATE

The Medical Students' Register has now been established for fourteen years and is bringing out some interesting data. During the fourteen years from 1911 to 1925, inclusive, 64,291 students were enrolled and, of these, 47,241, or 73.5 per cent, graduated. It is interesting to note also that of the 17,959 who have not graduated, 8,973, or 52.6 per cent, dropped out at the end of the first year, and 3,884, or 32.8 per cent, dropped out at the end of the second year. More than 75 per cent of those who discontinued medical study, therefore, did so during their first two years, while less than 25 per cent were dropped during the advanced years. This is as it should be, as students unable to properly carry their grades should find it out early in the course, and not be permitted to drag on and finally be eliminated in their final examinations just as they are in view of their objective.

THE AVERAGE AND MEDIAN AGES AT GRADUATION

Statistics collected regarding the age of students

who graduated in 1925 or who completed the four years of instruction show that the average age on graduation was 26.8; the largest number graduated of any one age was at the age of 25, and the median line separating the lower half from the upper half of the students graduated came at the age of 26.1 years. These three findings are identically the same as previously shown for the graduates of 1922. These ages would be increased by another year if the year's internship is included.

FOREIGNERS SEEKING LICENSURE IN THE UNITED STATES

The number of foreign physicians seeking licensure in the United States, not counting those from Canada, has increased from 67 in 1919 to 176 in 1921 and 519 in 1924. From Canada the number has increased from 71 in 1919 to 212 in 1924. Altogether, therefore, the total has increased from 138 in 1919 to 731 in 1924. During 1925, there were 473 candidates from abroad and 262 from Canada, a total of 735. The uncertainty regarding such candidates does not apply to those coming from Canada, since, through a most courteous and complete co-operation from the Canadian physicians, the character of Canadian medical schools is so well known and the verification of Canadian credentials so promptly and easily obtained.

This influx of physicians from abroad has brought about a rather serious situation in that they are entering a field already seriously crowded. The matter of chief concern, however, is the difficulty of securing a verification of the applicants' credentials from certain countries abroad, especially from Russia, and a still greater difficulty of proving their identity. The credentials of many of these foreign physicians have come to the Council for verification. In instances—including several from Russia—the credentials have been so patched up as to indicate alteration or fraud. Newspaper reports, furthermore, allege that the Soviet government has removed financial support from the (formerly) imperial universities. A recent list of the Russian medical schools compiled by the Rockefeller Foundation also contains many new medical schools the exact character of which is very doubtful or unknown.

In an effort to safeguard the public against this influx of physicians from abroad, the licensing boards of nine states[1] report that full citizenship is now required of all candidates from abroad; in five others[2] they are required to have taken out their first papers, and in Minnesota and New York they must declare their intention to become citizens. In three states,[3] foreign candidates of doubtful qualifications must successfully complete at least a year's work in a medical school or hospital in this country.

It is recommended that the credentials of all foreign candidates be carefully investigated by all state licensing boards; that the identity of such applicants be clearly established before they are admitted to examination, and, even more important, that the credentials be not accepted at all unless positive information regarding the educational standard of the medical school can be obtained. No undue obstacles, however, should be placed in the way of the foreign physician of known qualifications, who desires particularly to secure graduate medical education in this country.

1. Arizona, Florida, Illinois, Indiana, Kansas, Kentucky, Nebraska, North Dakota and Oklahoma.
2. Louisiana, Maryland, Michigan, New Hampshire and Texas.
3. Michigan, New York and Pennsylvania.

QUALIFICATIONS OF HOSPITAL STAFF MEMBERS

During the last few years, extreme pressure has been made by osteopaths mainly in California, Idaho and Iowa to force their admission to staffs of hospitals, and particularly of those receiving state aid. A ruling bearing on this question was first made by the Council in 1923, which, with amendments made since that time, now reads:

> In order to receive and retain a position among hospitals approved for the training of interns, a hospital must admit to its staff only reputable physicians who obtained their medical training in, and secured the degree of Doctor of Medicine from, a medical college determined as acceptable by the Council on Medical Education and Hospitals of the American Medical Association. This ruling must be enforced for every person permitted to treat the sick in the hospital or in any of its departments except by nurses, masseurs or other like assistants when acting under the orders of a physician on the regular staff of the hospital. Wherever, because of legislative enactment, public officials deem it necessary to provide hospital facilities for practitioners other than graduates of reputable medical schools, then these shall be in a building or buildings which in every way are separate from hospitals for physicians and shall bear different names.

With separate buildings and different names, there can be no possibility that the approval by the Council of any physicians' hospital can be construed as approval also of the nonmedical institutions.

In spite of sweeping changes made in the Iowa Medical Practice Act, it is beileved that boards of hospital directors or trustees are not legally bound to admit these nonmedical practitioners. On the contrary, in the expressed opinion of the Judicial Council, hospital trustees not only have the legal right, but it is their duty, to refuse to admit to the hospital staff any one, whether a physician or not, who in their opinion is not educationally or morally qualified to efficiently care for sick or injured people. This position, indeed, has been strengthened by the fact that hospital trustees have been upheld in every case taken into court in which nonmedical practitioners have been refused admission to the hospital staff.

Any lowering of the essential qualifications required for admission to the hospital staff, whether it applies to a medical or to a nonmedical practitioner, will destroy the high degree of efficiency which hospitals now maintain, so that instead of being places where safe treatment of the sick is assured, they will become places of actual menace. The only safe procedure is rigidly to maintain high educational and moral qualifications for every one admitted to the hospital staff.

In the opinion of the Council, this matter is sufficiently serious to warrant the decision that no hospital can be approved which admits to its staff a so-called "drugless" practitioner or any one else who is not qualified either morally or professionally, or which permits him to care for patients within its walls. It is the opinion of the Council, therefore, that the names of hospitals which violate this rule should not be included in any list of hospitals published in The Journal of the American Medical Association or in the American Medical Directory. Meanwhile, similar action has been taken by the several other national organizations which have to do with the investigation and approval of hospitals.

LAY HOSPITAL ASSOCIATIONS

The Council's attention has been called to the attempts by various laymen's hospital associations and others to establish hospitals and also to the danger of such institutions being established with inadequate medical control. Several such associations, it is understood, have been reported to the Judicial Council. The force back of these associations is evidently the desire to secure modern medical service at a lower cost for the average run of humanity. The report of one such society is quoted as being: "We want to resolve our society so that we can secure medical care and hospital services at nominal charges." Others, it is

claimed, were organized in order to provide more efficient medical service at more reasonable charges than are now available for people with average incomes.

It is believed that the problems underlying such organizations require a broader consideration by the American Medical Association than can come through the limited functions of the Council on Medical Education and Hospitals. At the Council's business meeting, held October 18, 1925, the following recommendation was adopted for submission to the House of Delegates:

The Council on Medical Education and Hospitals, while primarily interested in the education of the medical student and intern, is conscious of increasing debasis permitting those of ordinary means to have the mands on clinics and hospitals for medical care on a benefit of modern medical science. The medical profession cannot feel satisfied with the present extension of hospital service and of other opportunities for the care of the sick until every man, woman and child, regardless of their economic status, can have such benefits. In order to assist in guiding the great social forces now in operation and which are at present leading to many errors and to deficient medical care for many of our fellow citizens, we recommend to the House of Delegates that a "Committee on the Public Responsibility of the Medical Profession" be created consisting of one member from each of the councils and bureaus and at least three additional members serving five year terms, and that this committee act as a general board, giving advice to the House of Delegates, the Board of Trustees and the various councils on the various social implications of the practice of medicine.

In the opinion of the Council, although the high charges for hospitalization appear to be essential, nevertheless, the necessity of providing such services at lower cost to the average patient constitutes a very live problem.

ANOTHER COMPLETE HOSPITAL CENSUS

In 1920 the Council published in The Journal a census of all the hospitals in the United States with the most complete data then available from any source. Such was the demand for that information that the supply of extra reprints and copies of that issue were soon exhausted.

In 1925, after a lapse of five years, another complete census was made. Many new hospitals were found; many others had been enlarged, and others discontinued, merged, and changed name or ownership. The data, which are exceptionally complete and accurate, were published in the Hospital Number of The Journal, April 3, 1926. A complete list of hospitals for general service is published by states, giving for each hospital the bed capacity and the average number of patients. In a series of forty-tight state maps, the location of all hospitals in each state is given and it can be noted how many counties in each state are without hospitals.

HOSPITAL INFORMATION SERVICE

The demands for information regarding different phases of hospital work are rapidly increasing in volume and are received through correspondence, by telegraph, telephone, and by personal visits. They now amount to probably 6,000 separate calls a year, including the many requests from the other departments of the American Medical Association. Most of the information in the Council's hospital files is such as is not obtainable elsewhere.

SUMMARY

(a) As no national legal control of education has been established in this country and because the control by legal state agencies differs so widely, or because these agencies have failed entirely to function, it was necessary for the medical profession to voluntarily undertake such work in order "to put its own house in order."

(b) In the establishing of an approved list of medical schools, the American Medical Association, through this Council, has led other standardizing agencies which have since established approved lists of colleges.

(c) The Council now has in charge six separate "approved lists"; namely, medical schools, graduate medical schools, hospitals approved for interns, hospitals approved as reputable, approved colleges of arts and sciences and clinical laboratories.

(d) Medical school enrolments and the number of students graduating are still on the increase, there being this year approximately 18,560 students and 4,020 graduates.

(e) The students' register shows that in fourteen years of all students enrolled, 73.5 per cent were graduated. Of those failing to graduate, 75 per cent dropped out during the first two years of the medical course.

(f) The median age at graduation for the class of 1925 was 26.1 years and the largest number graduating at any one age was at the age of 25. These ages are the same as previously shown for the graduates of 1922.

(g) Foreign physicians seeking license in the United States, exclusive of those from Canada, have increased in numbers from 67 in 1919 to 519 in 1924 and 473 in 1925. The chief danger from these is due to the difficulty of securing verification of their qualifications and personal identification of the applicants.

(h) The Council has established a ruling that no hospital will be considered as approved if other than reputable graduates of acceptable medical schools are permitted to attend patients in them or are admitted to their staffs.

(i) This special ruling is important, as certain groups of nonmedical practitioners are endeavoring to force their way into hospitals. The ruling will apply with equal force, however, if any other practitioner who is not qualified, morally or professionally, is permitted to treat patients in the hospital.

(j) Figures based on another complete census of hospitals in the United States, similar to that made in 1920, appears in the last Hospital Number of The Journal, that of April 3, 1926.

Respectfully submitted,

COUNCIL ON MEDICAL EDUCATION AND HOSPITALS

William Pepper.	Arthur D. Bevan, Chairman.
Samuel W. Welch.	Walter F. Donaldson.
Ray Lyman Wilbur.	Merritte W. Ireland.
Louis B. Wilson.	N. P. Colwell, Secretary.

COMMENT

Having read these reports that impart the tremendous activities of your National Association the query is pertinent: Does not such work merit your individual support? By virtue of your membership in your County and State Societies you are a member of the American Medical Association, but not a FELLOW. None of the dues that you pay as a member go to the National Association. To become a FELLOW application must be filed and the payment of Fellowship Dues of $5.00 per year is required. In return you receive without charge the weekly issue of The Journal of the American Medical Association, than which there is no better or greater medical journal. Surely with such work carried on for your benefit you can ill afford to not become a Fellow. Send for an application blank today by writing to Dr. Olin West, Secretary, 535 N. Dearborn Street, Chicago, Ill.

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The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications, or advertisements.

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JUNE, 1926

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

MINUTES OF THE MEETING OF THE JOINT COMMITTEE ON PUBLIC HEALTH EDUCATION HELD IN ANN ARBOR, APRIL 27, 1926

1. Present: President C. C. Little, Doctors Cabot, MacCraken, Biddle, Jackson, Lyons, Dempster, Huber, Sundwall, Darling, Sinai, Henderson, and Mr. Werle and Mr. Lansdale.

2. Meeting called to order by the Chairman, Dr. Hugh Cabot.

3. Minutes of the last meeting read and approved.

4. Report of the Committee on Publicity. Mr. Werle, reporting for the Committee, stated that after studying the whole subject of suitable material for publicity purposes, it was decided to use, for the present at least, articles prepared by specialists employed by the Tuberculosis Association of New York, selected articles from clip sheets from Hygeia, special articles from the medical journals of the country, and such other news items as may be secured from the medical profession and others interested in health work within the state. The articles in question are to be put in shape for publication by Mr. Werle and other members of the Committee, after which they are to be forwarded to the office of the Extension Division for release to the press of the state.

On motion of Dr. Jackson, Doctors Sundwall and Henderson were added to the Committee. The Committee on Publicity, as now constituted, consists of the following members: Dr. Jackson of Kalamazoo, Dr. A. P. Biddle of Detroit, Mr. Werle of Lansing, and Doctors Sundwall and Henderson of Ann Arbor.

5. Dr. Jackson, Chairman of the Committee on Publicity, called attention to the need of a fund for use in connection with the proposed publicity program. It was suggested that possibly certain members of the units of the Committee might be willing to contribute funds for this purpose. Dr. Darling, on behalf of the State Medical Society, gave his personal check for $100 as a contribution to the Publicity Fund. Dr. Lyons, on behalf of the State Dental Society, made a tentative pledge for a like amount, subject to the approval of the Dental Society. Dr. Little made a pledge of $100 as the University's contribution to the fund, this contribution being subject to the approval of the Board of Regents of the University.

On motion of Dr. Henderson, these offers of contributions on the part of the State Medical Society, the State Dental Society, and the Univeristy of Michigan, were accepted with thanks.

On motion of Dr. Biddle, the Committee expressed its appreciation of the offer of Mr. Werle to render clerical and editorial assistance through his office in connection with the preparation and editing of publicity material.

6. The $100 contributed by Dr. Darling was deposited by the Secretary with the Treasurer of the University of Michigan in a Trust Fund account, this particular fund to be known as The Publicity Fund of the Joint Committee on Public Health Education. Requisitions upon this fund may be drawn by the Director of the Extension Division upon regulation trust fund vouchers. In this connection the Secretary suggested that a report of the receipts and expenditures in connection with this Trust Fund should be made at the first meeting of the Joint Committee each academic year.

7. Report on Health Lecture Program for the current year. After a brief outline of the character and extent of the lecture program for the current year up to date, Dr. Sinai gave a detailed report of the plan adopted for carrying on a concerted and co-

ordinated Health Education Program in Detroit, Grand Rapids, and Flint. He also outlined a plan for the preparation of lecture outlines and slides for the use of doctors who are selected to carry on a co-ordinated series of health lectures in the principal cities of the state and throughout the rural sections of the southern tier of counties.

Dr. Jackson expressed the appreciation of the Committee for the excellent work done by Dr. Sinai in connection with our Health Education Program and gave his special approval of the plan for preparing lecture outlines for use in connection with health education addresses. Dr. Sinai's report was accepted.

8. Bulletins. Dr. Henderson reported that a new bulletin would not be issued at once, because of the fact that we have on hand several thousand of the 1925-26 edition. As soon as this edition is exhausted a new bulletin will be prepared in which there will be incorporated an account of the proposed series plan of health lectures.

9. New Business. Dr. Sundwall moved that the Michigan State College be requested to become a unit in the Joint Committee on Public Health Education and that Dr. Kenyon L. Butterfield be asked to represent that institution on the Joint Committee. Carried.

10. Election of officers. President C. C. Little was elected Chairman of the Joint Committee for the coming year and Dr. Cabot was elected to the office of Vice-Chairman.

11. Time and place of next meeting. It was moved and seconded that the next meeting be held in October, 1926, at Ann Arbor, the time to be determined upon by the Secretary.

The meeting adjourned.

W. D. Henderson, Secretary.

HOSPITAL SERVICE IN MICHIGAN

The figures and data presented are from the annual report of the Council on Medical Education and Hospitals of the A.M.A. and is for the year 1925. It reflects interesting statistical information as to our hospital situation.

	Total Beds	Av.Beds in Use
Adrian, 12,508—Lenawee		
Emma L. Bixby Hospital	22	18
Albion, 8,354—Calhoun		
Jas. W. Sheldon Mem. Hospital	40	20
Allegan, 3,637—Allegan		
The John Robinson Hospital	20	12
Alma, 7,542—Gratiot		
Brainerd Hospital	21	4
Carney Private Hospital	20	8
Alpena, 11,101—Alma		
Donald McRae Hospital	20	9
Ann Arbor, 22,178—Washtenaw		
The Cowie Hospital	12	9
St. Joseph's Mercy Hospital	180	150
University Hospital*	520	515
Washtenaw Private Hospital	16	6
Bad Axe, 2,140—Huron		
Hubbard Memorial Hospital	30	21
Battle Creek, 42,336—Calhoun		
Battle Creek Sanitarium*	1,000	602
Calhoun Co. Public Hosp. (T.B.)	50	36
Maple Street Hospital	18	9
Nichols Memorial Hospital	100	63
Bay City, 48,907—Bay		
Bay City General Hospital	30	18
Mercy Hospital	120	59
Sanatarian Hospital	30	15
Benton Harbor, 13,959—Berrien		
Benton Harbor Hospital	40	24
Big Rapids, 4,558—Mecosta		
Big Rapids General Hospital	20	10
Cadillac, 9,734—Wexford		
Mercy Hospital	50	27
Wexford Co. Hospital	25	18
Calumet, 25,991—Houghton		
Calumet & Hecla Hospital	25	15
Charlevoix, 2,218—Charlevoix		
Charlevoix Hospital	26	6
Cheboygan, 5,642—Cheboygan		
Cayley Hospital	10	5
Coldwater, 6,114—Branch		
Wade Memorial Hospital	25	8
Crystal Falls, 3,394—Iron		
Crystal Falls General Hospital	15	9
St. Erik's Hospital	12	5
Dearborn, 2,470—Wayne		
St. Joseph's Retreat (N.&M.)	400	375
Detroit, 1,242,044—Wayne		
Children's Hosp. of Michigan†	150	138
City of Detroit Receiving Hosp.*	360	355
Delray Industrial Hospital	95	60
Detroit E. E. N. & Throat Hosp.	75	41
Detroit Tuberculosis Sanatorium	145	133
Dunbar Memorial Hospital	45	30
Evangelical Deaconess Hospital	115	108
Fenwood Hospital	10	2
The Grace Hospital*	329	272
Harper Hospital*	460	373
Henry Ford Hospital*	500	292
Herman Kiefer Hospital	700	547
Jefferson Diagnostic Hospital†	50	45
Lincoln Hospital	25	20
Michigan Mutual Hospital	40	28
Noble Sanatorium (N.&M.)	30	25
Pennsylvania Ave. Sanatorium (N.&M.)	14	10
Providence Hospital*	275	250
St. Joseph's Mercy Hospital	150	150
St. Mary's Hospital*	300	200
Willam Booth Memorial Hosp.	19	10
Women's Hospital	108	65
Dowagiac, 5,440—Cass		
The Lee Sanitarium	25	18
Durand, 2,672—Shiawassee		
Durand Hospital	10	6
East Grand Rapids, 800—Kent		
Reed's Lake Sanitarium	30	20
Eaton Rapids, 2,397—Eaton		
Harriet Chapman Hospital, Inc.	20	8
Eloise, 700—Wayne		
Eloise Hospital for Mental Diseases	1,463	1,204
Eloise Infirmary	245	245

	Total Beds	Av.Beds in Use
Escanaba, 13,103—Delta		
Laing Hospital	25	8
St. Francis Hospital	85	40
Farmington, 853—Oakland		
Convalescent Home	145	115
Flint, 130,316—Genesee		
Hurley Hospital*	135	91
St. Joseph Hospital	40	40
The Women's Hospital	30	23
Fremont, 2,180—Newaygo		
Gerber Memorial Hospital	10	5
Goodrich, 300—Genesee		
Goodrich General Hospital	24	16
Hancock, 7,527—Houghton		
St. Joseph's Hospital	60	37
Harbor Beach, 1,928—Huron		
Harbor Beach Hospital	20	8
Hart, 1,590—Oceana		
Oceana Hospital	10	6
Hastings, 5,132—Barry		
Pennock Hospital	32	30
Highland Park, 72,289—Wayne		
Highland Park General Hosp.*	133	114
Hillsdale, 5,476—Hillsdale		
Hillsdale Hospital	18	9



● Hospital for community use.
✚ Tuberculosis Hospital.
▲ Nervous and Mental Hospital.
○ ✚ △ Established since 1920.

Total hospitals in Michigan, 228; for community use, 168; population per hospital bed, 297; percentage of beds occupied, 72; percentage of counties without hospitals, 28.9.

Grand Haven, 7,224—Ottawa		
Elizabeth Hatton Memorial Hospital	20	9
Grand Rapids, 158,698—Kent		
Blodgett Memorial Hospital*	134	109
Butterworth Hospital*	220	197
Christian Psychopathic Hospital	110	105
Grand Rapids Tuberculosis Sanatorium	125	100
Kent Co. Detention Hospital (N.&M.)	18	7
Municipal Isolation Hospital	80	24
St. Mary's Hospital*	115	99
Grayling, 2,450—Crawford		
Mercy Hospital	30	8
Greenville, 4,304—Montcalm		
United Memorial Hospital	15	5
Grosse Pointe Farms (Grosse Point P.O.), 2,084—Wayne		
Cottage Hospital	15	8
Holland, 13,140—Ottawa		
Holland Hospital	15	13
Houghton, 4,456—Houghton		
Houghton Co. Tuberculosis Sanatorium	55	40
Iron Mountain, 8,251—Dickinson		
Iron Mountain General Hospital	33	25
Iron River, 4,295—Iron		
Iron River Hospital	12	5
Lakeside Hospital	15	2
Ironwood, 17,391—Gogebic		
Grand View Hospital (T.B.)	85	45
Twin City Hospital	20	15
Ishpeming, 10,500—Marquette		
Finnish Hospital	35	6
Ishpeming Hospital	33	20
Jackson, 57,972—Jackson		
W. A. Foote Memorial Hosp.*	125	76
Jackson Co. Contagious Hospital	40	16
Jackson Tuberculosis Hospital	21	18
Mercy Hospital	50	18

	Total Beds	Av.Beds in Use
Kalamazoo, 53,613—Kalamazoo		
Borgess Hospital	103	74
Bronson Methodist Hospital	50	49
Fairmont Hospital (T.B.)	128	58
Lake Linden, 2,182—Houghton		
Lake Superior General Hospital	12	6
Lakeview, 886—Montcalm		
Kelsey Hospital	11	6
Lansing, 70,753—Ingham		
Ingham Sanitarium (T.B.)	62	40
Lansing City Hospital	40	8
Edw. W. Sparrow Hospital	84	57
St. Lawrence Hospital	125	50
Laurium, 6,696—Houghton		
Calumet Memorial Hospital	20	16
Ludington, 8,810—Mason		
Paulina Sterns' Hospital	25	12
Manistee, 9,698—Manistee		
Mercy Hospital and Sanitarium	60	24
Marquette, 13,406—Marquette		
Morgan Heights Tuberculosis Sanatorium	32	18
St. Luke's Hospital	52	39
St. Mary's Hospital	75	40
Marshall, 4,270—Calhoun		
Oak Lawn Hospital	12	12
Menominee, 8,907—Menominee		
St. Joseph's Hospital	75	57
Mohawk, 1,000—Keweenaw		
Mohawk Mine Hospital	20	7
Monroe, 14,224—Monroe		
Monroe Hospital	30	20
Mt. Clemens, 9,488—Macomb		
St. Joseph's Sanitarium	85	40
Munising, 5,037—Alber		
Munising Hospital	22	16
Muskegon, 43,088—Muskegon		
Hackley Hospital*	115	72
Mercy Hospital*	102	60
Muskegon County Tuberculosis Sanitarium	51	42
Negaunee, 7,419—Marquette		
Negaunee Hospital	18	9
Dr. Robbins' Hospital	18	7
Newberry, 2,172—Luce		
Perry-Spinks Hospital	15	10
Northville, 1,738—Wayne		
East Lawn Sanatorium (T.B.)	55	45
Spring Hills Sanatorium (T.B.)	402	376
Norway, 4,533—Dickinson		
Penn Hospital	20	7
Ontonagon, 1,406—Ontonagon		
Ontonagon Co. Tuberculosis Sanatorium	15	4
Ontonagon Hospital	12	7
Oshtemo, —— —Kalamazoo		
Pine Crest Sanatorium (T.B.)	40	35
Owosso, 14,236—Shiawassee		
Memorial Hospital	58	48
Petoskey, 5,064—Emmet		
Lockwood Hospital	25	18
Petoskey Hospital	40	24
Pinckney, 384—Livingston		
Pinckney Sanitarium	10	6
Pompeii, 300—Gratiot		
Pompeii Hospital	12	10
Pontiac, 47,455—Oakland		
Franklin Road Contagious Hosp.	25	7
Oakland Ave. Contagious Hosp.	42	20
Oakland County Tuberculosis Sanatorium	23	16
Pontiac City Hospital	65	36
Pt. Huron, 29,954—St. Clair		
Emergency Hospital	35	10
Pt. Huron Hospital	50	33
Powers, 249—Menominee		
Delta-Menominee Co. Sanatorium (T.B.)	80	64
Reed City, 1,803—Osceola		
Reed City Hospital	10	2
Saginaw, 72,100—Saginaw		
Saginaw Co. Tuberculosis Hosp.	25	20
Saginaw General Hospital*	140	74
St. Mary's Hospital	78	55
Women's Hospital	50	29
Sault Ste Marie, 12,096—Chippewa		
Chippewa Co. Memorial Hosp.	53	25
South Haven, 3,829—Van Buren		
City Hospital	14	9
St. Johns, 3,925—Clinton		
St. Johns Hospital	16	11
St. Joseph, 7,251—Berrien		
St. Joseph Sanitarium	32	20
St. Louis, 3,036—Gratiot		
Park Hotel, Magnetic Mineral Springs and Sanitarium	50	30
Stambaugh, 2,263—Iron		
Stambaugh Hospital	12	6
Sturgis, 5,995—St. Joseph		
Sturgis Memorial Hospital	32	25
Three Rivers, 5,209—St. Joseph		
City Hospital	18	7
Trimountain, 2,500—Houghton		
Copper Range Hospital	25	13
Vicksburg, 1,946—Kalamazoo		
Franklin Memorial Hospital	10	6
Wakefield, 4,151—Gogebic		
Wakefield Hospital	11	5
Wyandotte, 24,471—Wayne		
John F. Eilbert Memorial Hosp.	20	11
Wyandotte Hospital	53	New
Ypsilanti, 7,413—Washtenaw		
Beyer Memorial Hospital	25	19
Nine General Hospitals of less than 10 beds	64	37
Total for community use, 168	13,947	10,177

In Michigan the following twenty-four counties have no hospitals for community use: Alcona, Antrim, Arenac, Baraga, Benzie, Claire, Gladwin, Iosco, Kalkaska, Keweenaw, Lake, Lapeer, Leelanau, Mackinac, Midland, Missaukee, Montmorency, Ogemaw, Oscoda, Otsego, Presque Isle, Roscommon, Sanilac, Tuscola.

THE DALLAS A.M.A. MEETING

The following from the Journal of the A. M. A. best sets forth the appraisal made of the Dallas session:

When registration closed at the Dallas Session of the American Medical Association, April 23, with a total of 4,179 physicians in attendance at the session, the high point was reached for any medical convention ever held in the southern part of the United States. This climax marked the achievement of a pinnacle not only in numbers but also in scientific progress, hospitality and attention to the economic problems of medical practice.

The meetings of the House of Delegates were characterized by earnest and harmonious consideration of the problems of the day. The work of the Veterans' Bureau, the current litigation and legislation on alcohol, the presentation of expert opinion evidence in our courts of law, and the problems of medical and nursing education held attention equally with the more intimate details of organizational affairs within the American Medical Association.

The technical exhibits were beautifully housed in a structure that might well have been built specifically for the purpose. Under the same roof the scientific exhibit and the motion picture show attracted the attention of thousands of physicians, who were able to hear at first hand the results of recent investigations in laboratory medicine and to complete in the course of the week a rapid-fire course of post-graduate medical instruction. The majority of the scientific sessions of the various sections likewise were held in this structure. The clinics of Monday and the papers of the last three days attracted large audiences. Many of those in attendance expressed satisfaction with the acoustic properties and the comfortable arrangements of the halls devoted to this purpose. Of special significance in the scientific programs were symposiums on the respiratory conditions of childhood, on the surgery of the sympathetic nervous system, and on the disturbances of the heart, which outlined clearly the present status of knowledge in these fields. At the same time, the newer discoveries of medicine and of surgery relating to the use of new medicaments, of roentgen-ray, radium and physical therapy, and of new methods for the control of hypertension were not neglected. Finally, the programs of the scientific sections were marked by an unusual number of addresses devoted to methods of organization and to promulgation of the benefits of medicine on a large scale to the public.

Above all else, the Dallas Session was characterized by a form of interest and entertainment that has become proverbial under the name of "Southern hospitality." It seemed, indeed, that every citizen of the community had schooled himself in the thought that the week of April 19-23 was to be devoted to the care of the visiting physicians and their guests. The clubs, department stores, hotels, taxi-drivers, street-car employes—in fact, all lay organizations and individuals who came into contact with those attending the session—seemed to be willing to do everything in their power to see to it that the conventionist was served in the most exemplary manner. The organization of such extensive luncheons as the barbecue, at which some eight thousand guests partook of freshly slaughtered and roasted Texas cattle, the gift of Dr. Dean, and the Mexican luncheon tendered by the Dallas County Medical Society indicated a supervising skill on the part of the Committee of Arrangements which met with a universally grateful response. The lack of metropolitan entertainment facilities in a community the size of Dallas gave the Committee of Arrangements opportunity to provide unusual events for the delegates and visitors during the times when attendance was not required at the scientific or business sessions. The dinners, dances, receptions and the impromptu vaudeville held for large groups of visitors emphasized the social qualities of the annual session. The dispersion of the visitors after the scientific meetings, such as occurs in larger communities, was avoided to the interest of harmony and pleasant companionship for a far greater number than are ordinarily entertained in this manner at a medical convention.

The citizens of Dallas, the Committee of Arrangements, the press and the organizations of that city received the well merited thanks of the House of Delegates for the whole-hearted manner in which they took the American Medical Association into their hearts and made the Seventy-Seventh Annual Session not only the greatest medical meeting ever held in the South, but also one of the greatest ever held in this country.

In this issue there will be found more detailed reports which you are urged to read in order that you may be better informed as to the activities of our national body.

WHY WE FAIL IN LEGISLATION

Adverse medical legislation enacted in many instances because individual members of the profession remain inactive and unconcerned. This is again evidenced by the following letter:

Editor of The Journal:

Your letter of April 30, relative to the Sheppard-Towner Act, found me busy on the draft of a statement concerning pending legislation to prolong the life of that act. I shall send to Senators Ferris and Couzens a copy of the statement, or at least the gist of it, as soon as possible. In the meantime, however, I am sending them letters, copies of which I enclose.

The situation as stated in your letter, however, depresses me greatly. In the Journal of February 6, was an editorial relative to the then recently introduced bills to prolong the operations of the Sheppard-Towner Act, ending with an appeal to state associations and county societies, and to physicians generally, to telegraph or write to the President and to their senators and representatives, protesting against the enactment of such legislation. The Journal went to approximately 2,988 physicians in Michigan. Moreover, a reprint of that editorial was promptly sent to the Secretary and President of every State Medical Association. Your copy seems to have reached you promptly for the editorial was reproduced in the March issue of The Journal of the Michigan State Medical Society, page 155, and must therefore not only represent a second appeal for action to the many already reached by The Journal of the American Medical Association, but also an appeal to many who did not receive the latter Journal. And yet Senator Ferris writes that prior to your recent telegram, "every letter was commendatory" and Senator Couzens writes that your telegram was the first opposition he had had to the bill. Under such circumstances I fear that my letters to the senators will have little weight.

A further source of discouragement was the reaction of the Atlantic Medical Journal, the official publication of the Medical Society of the State of Pennsylvania and the Medical Society of Delaware. The leading editorial in the April issue, page 469, discusses "Maternity and Infancy Work in Pennsylvania," and ends with the following:

"The bills now before Congress for an extension of the original five year period should have the full support of the medical profession and also of the laity of the commonwealth."

Other sources of discouragement in this field might be cited. For instance, evidence tending to show that the Georgia State Medical Association passed a resolution asking the co-operating agencies of the Children's Bureau and of the State Board of Health to take charge of the midwife situation; and that the Arkansas Medical Society has approved the Sheppard-Towner Act. I take these two last instances of lack of harmony from evidence offered by Senator Sheppard in support of his bill, and therefore do not vouch for their accuracy.

What is the answer to the situation?

Yours truly,

Wm. C. Woodward, Executive-Secretary,
Bureau of Legal Medicine and Legislation.

Your officers, Dr. Woodward and a few other men may protest, but their efforts are defeated because the proponents outnumber them in their demands. Your representatives are influenced by numbers. Had one thousand Michigan doctors written or wired our Senators and had the same opposition been recorded in other states, this type of unfavorable medical legislation would not be enacted.

The moral is: "Don't holler against adverse laws after they are passed and wonder why. Register your opposition before the bill comes to a vote."

KOCH'S "CANCER ANTITOXIN"

THE PRESENT STATUS OF THE NOSTRUM EXPLOITED BY WILLIAM F. KOCH

In 1912, William F. Koch of Detroit was graduated in medicine by the Detroit College of Medicine and Surgery. Previous to this he had been an assistant in physiology and an instructor in histology in the University of Michigan Medical School. He also had been professor of physiology in the Detroit College of Medicine and Surgery. Less than a year after his graduation in medicine, Dr. Koch announced that he "had developed a real specific cure for cancer." Dr. Koch's thesis seems to be that cancer is caused by a micro-organism resembling the spirochete of syphilis. It is claimed that he has developed a differential poison—"Koch's Synthetic Anti-toxin"—that will destroy the "cancer germ" without injuring the host. His remedy has been described in one place as "a synthetic chemical compound of very definite molecular arrangement" and in another place as a "difficultly prepared synthetic structure, worked down on a recrystallization process"—two descriptions that make up in sonorousness what they lack in clarity.

Seven years have passed, during which time Dr. Koch has seen fit to keep his secret to himself. During that same time we have been unable to learn of a single instance in which a case of unquestioned malignant disease has been cured by the Koch treatment. On the other hand, we have received information regarding individuals who "promptly died" after taking the treatment.

At different times the Wayne County (Detroit) Medical Society has appointed three committees to investigate Koch's "cure." Each of the three reports has been unfavorable. The last report closed with the statement:

"In no instance have we found a case where diagnosis of cancer was absolutely established and where no other form of treatment had been used in which a cure or any decided benefit had ever been obtained."

These facts have been discussed at different times in The Journal and the matter is available in reprint form to any who will send a self-addressed, stamped envelope for it. The Koch treatment has been commercialized, and it seems evident that large sums of money have been spent in circularizing the profession and the public in the interest of the "cure."

SOME REPORTS FROM THE FIELD

During the last four or five years The Journal has received hundreds of letters from physicians and laymen who were inquiring about the Koch remedy. A few of the many letters from physicians and one from a layman made specific mention of individuals who were taking or were thinking of taking the Koch treatment for malignant disease. Recently we collected these letters from the files and wrote to those who had sent them asking for information regarding the outcome of the various cases. We have received answers from most of those to whom we have written, and we give in as few words as possible the essential facts:

Mr. A., Michigan—Wrote in February, 1924, that his sister was taking treatment for uterine cancer from Dr. Koch. Recorded in March, 1926, that his sister died in Detroit in April, 1924.

Dr. B., New York—Had three patients who took the Koch treatment: (1) Woman with carcinoma of rectum; "received four injections, reactions were terrible. She did not improve but steadily became worse and died." (2) Elderly man with beginning cancer of stomach; was "given two treatments

Graduate Nurses In Attendance
40 Waltham St.
HAMMOND IND.
THE TELLER SANITARIUM
THE KOCH
TREATMENT FOR CANCER
BEDSIDE CASES EXCEPTED
Administered by
DR. FLEENER
Phone
Dial Operator
HAMMOND
725

Reproduction (reduced) of an advertisement in a recent classified telephone directory. The "Dr. Fleener" is apparently the same individual who for years ran quack advertising offices in other Indiana towns.

and promptly became worse and died." (3 A case of axillary carcinoma received many treatments: "Ultimate result was the same —death."

Dr. C., Louisiana—Wrote in November, 1924, that a friend with cancer of rectum was taking the Koch treatment at Detroit. Reported in April, 1926, that patient died in August, 1925.

Dr. D., Louisiana—Wrote in November, 1924, that a prominent citizen of his town with malignant disease was under the care of Dr. Koch. Reported in April, 1926, that patient died. Dr. D. adds: "This has been the fate of all (personally) known cancer patients treated with Koch cancer remedy."

Dr. E., Alabama—Wrote in January, 1925, that several patients suffering from carcinoma were taking the Koch treatment. Reports April, 1926, "All the patients who received the Koch treatment are now dead."

Dr. F., Mississippi—Wrote in January, 1925, that patient with carcinoma of the stomach had received the Koch treatment. Reported in March, 1926, that patient died five months later. Reports also in his last letter the case of man with carcinoma on the side of the nose; took Koch treatment in August, 1925; at the present time the cancer "is more than twice as large as it was at the time of the treatment." Reports also that another patient with carcinoma of the cheek received the first Koch treatment in August, 1925; the patient is now "down in bed and not expected to live."

Dr. G., Tennessee—Wrote in February, 1925, of a woman with adenocarcinoma and metastases who took the Koch treatment. Reports April, 1926: "She grew gradually worse, as all such cases do, and died, June, 1925, which is about the allotted time we expected her to live, regardless of the Koch treatment." Dr. G. adds, "We had another case here in the city that Dr. —— (a disciple of Koch) treated and she died very promptly."

Dr. H., Tenessee—Wrote in February, 1925, that a woman with carcinoma was taking the Koch treatment. Reports in March, 1926, "she died promptly."

Dr. I., New York—Wrote in September, 1925, that a woman with advanced carcinoma was so desperately ill that he advised her to remain at home. She, however, obtained money with extreme difficulty and paid $300 for one injection. "Came home in a state of extreme exhaustion and died in a few days after her return." The same physician reports another case of a patient with carcinoma who had been given injections at the cost of $500. "He subsequently died after having been advertised as a cure."

Dr. J., Kansas—Wrote in October, 1925, that a patient with cancer of the tongue had gone to the Koch Cancer Clinic at Detroit. Reported March, 1925, that patient was given one injection, paid a fee of $300, stayed in Detroit for twelve weeks, received another injection, paying $200, remained two weeks longer, then went home and died one week after reaching home. The same physician reports another case, that of a woman with cancer of the uterus on her way to Rochester, Minn., who was induced while in the Union Station at Kansas City to go to a Koch disciple, where she received the Koch treatment. She received three injections, paying $250, although she was "in poor circumstances." Died about one month after the third injection.

Dr. K., Nebraska—Wrote in May, 1925, that "cases of cancer in this vicinity have been treated by means of the (Koch) serum with no results." Reports in April, 1926, on three cases: (1) Sarcoma in boy of 14; took Koch treatment and died. (2) Patient with carcinoma of pylorus; took treatment and died. (3) Patient with carcinoma of rectum with metastases; took treatment and died.

THE KOCH CANCER FOUNDATION

The latest move is the establishment of the imposingly named "Koch Cancer Foundation" with William F. Koch as "Director." This was organized in February, 1926, by the following individuals:

Frederick Dugdale, M. D.; C. Everett Field, M. D.; A. W. Hoyt, M. D.; W. Wallace Fritz, M. D.; Elnora C. Folkmar, M. D.; Lorenz L. Dill, M. D.; Albert Lynch, M. D.

It may be of interest to present some of the information on the file regarding these individuals:

Frederick Dugdale, M. D., Boston—Dr. Dugdale was born 1880 and was graduated in 1903 by the Baltimore Medical College. His activities in

Dr. Frederick Dugdale, Boston Specialist

Skin, Blood and Nervous Diseases

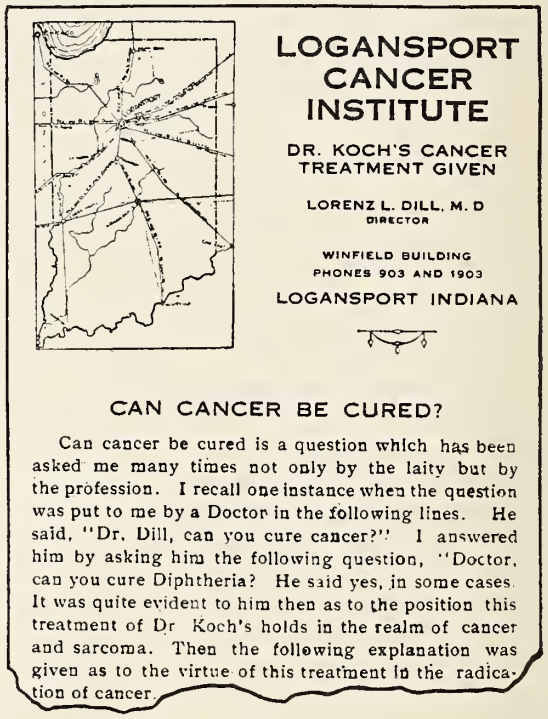
RHEUMATISM, neuralgia, neuritis, lumbago, sciatica, rheumatoid, arthritis, gout, catarrh, epilepsy goitre.
CANCER, TUMORS, piles, fistula and rectal diseases WITHOUT THE KNIFE.
EYE, ear, nose, throat, stomach.
Consultation. Advice FREE.
Investigate methods of treatment
Lawrence office, 467 Essex St.
FRIDAYS ONLY. Hours 2-4, 6-7

exploiting the Koch cancer cure are no matter of surprise. When the large economic possibilities of the pseudoscience of Abrams were obvious, Dr. Dugdale was one of the disciples of that cult. Prior to that he advertised as a "Scientist in Rheumatism, Cancer, Chronic Blood and Nervous Diseases." In 1921 his name appeared as "President of the Allied Medical Association of America" (exposed in The Journal, July 5, 1919). It appeared also as one of the officers of the "Medical Society of the United States," which was originally created to organize fee-splitters but later became a "Society of Protest Against the Autocracy of the A.M.A." Still later Dr. Dugdale's name was given as Chairman of the Board of Trustees of the "American Association for Medico-Physical Research" (exposed in The Journal, September 19, 1925).

A. W. Hoyt, M. D., New York City—According to our records Alpheus Whiting Hoyt was born in 1866 and was graduated in 1895 by the Medical Department of the University of the City of New York. According to the September, 1921, issue of the house-organ of the late quack Albert Abrams, A. W. Hoyt was a disciple of the preposterous Electronic Reactions of Abrams and a lessee of one of Abrams' "Oscilloclasts." Dr. Hoyt's professional cards read:: "Treatment of Chronic Diseases." and he has sent out announcements stating that he had been "enabled to secure for his practice a medical treatment for what is called inoperable and incurable cancer" and "results warrant the statement that this treatment removes cancer from the incurable class of disease." More recently Dr. Hoyt appears to have become interested in the "Auto-Hemic Serum" of L. D. Rogers.

W. Wallace Fritz, M. D., Philadelphia—According to our records, W. W. Fritz was born in 1872 and was graduated in 1894 by the Medico-Chirurgical College of Philadelphia. This man sometimes puts after his name the letters M.D., D.D.S., N.D., D.O., D.C., indicating that he is a physician, a dentist, a naprapath, an osteopath and a chiropractor. Added to these protean activities, he has been the "dean" of the "American College of Neuropathy' 'and "Professor of Neuropathy" at the same institution. It seems that when he became "dean" the institution had three students and thirty "faculty members." In 1915, the name of W. Wallace Fritz appeared as the "President of the National Association of Drugless Physicians." Dr. Fritz, for reasons not obvious, is permitted to hold membership in the Philadelphia County Medical Society, and, of course, has taken advantage of this to become a Fellow of the American Medical Association. Nevertheless, in 1919, this man's name appeared in connection with the formation of a new organization that was to be founded to fight the American Medical Association—the alleged "medical trust." It was known as the "Constitutional Liberty League of America" and seemed to be a later edition of the defunct "National League for Medical Freedom." W. W. Fritz's name has also been given as one of th "censors" and "vice-president" of the Allied Medical Association of America." He, apparently, was a witness in behalf of the quack Brinkler when the government was prosecuting this individual. Brinkler, whose fraudulent business was debarred from the use of the mails in 1914 and also in 1916, was again quacking it through the mails in 1925, and his stationery last year declared that his "Medical Director" was W. Wallace Fritz!

Lawrence (Lorenz) L. Dill, M. D., Logansport, Ind.—According to our records, Dr. Dill was born in 1884 and received a diploma from the University of Michigan Homeopathic Medical School in 1910. He was licensed the same year. Early in 1924, Dr. Dill was puffing the Koch cancer cure. It was not long before he was sending out printed cards bearing a map of Indiana that showed how Logansport might be reached and advertising the "Logansport Cancer Institute." According to these cards, Dr. Dill was the "Director" of this "Institute" at which "Dr. Koch's cancer treatment is given." The opening paragraph of the card purports to answer the question: "Can cancer be cured?" Dr. Dill answers the question by analogy. He implies that the Koch nostrum has the same scientific value in the treatment of cancer that diphtheria antitoxin has in the treatment of diphtheria!



C. Everett Field, M. D., New York City—According to our records, Dr. Field was born in 1870 and was graduated by the Medical Department of the University of the City of New York in 1891. He does not seem to have practiced until 1913—twenty-two years after graduating. He is a member of his local medical society and as such has qualified as a Fellow of the American Medical Association. Apparently Dr. Field was for some years connected with the advertising department of the Glyco-Thymoline concern and later became president of the Holotheol Chemical Company. Still later he appeared as "director" of the "Radium In-

The American College of Neuropathy
Seventeenth and Summer Streets
PHILADELPHIA
(Incorporated) (Chartered)
The pioneer Neuropathic School of Drugless Therapy. Four-Year Course
Write for catalogue to
W. WALLACE FRITZ, M. D., Dean
(Office of the Dean), 1600 Summer St.
PHILADELPHIA, PA.

stitute of New York." Becoming interested in the Koch nostrum, this product was given a great deal of newspaper publicity at the time that Dr. Field saw fit to puff it before the "American Association for the Study and Cure of Cancer." The latter organization is not to be confused, of course, with the well-established American Society for the Control of Cancer.

Elnora C. Folkmar, M. D., Washington, D. C.—According to our records, Dr. Folkmar was born in 1863 and was graduated in medicine when she was 46 years old by the George Washington University Medical School at Washington, D. C. In 1919, Dr. Folkmar appears to have been a member of the "Society of Physical Therapeutists," whose scientific status will be appreciated when it is known that on its program appeared the "patent medicine" exploiter George Starr White, the "zone therapy" exponent, Fitzgerald, and others who were to present papers on that preposterous piece of hokum "Bio-Dynamo-Chromatic-Diagnosis." Later Dr. Folkmar's name appeared as a lessee of one of Abrams "Oscilloclasts," and still later as the first vice-president of the egregious "American Association for Medico-Physical Research," which was dealt with in detail in The Journal, September 19, 1925. Dr. Folkmar's name is also given in a booklet issued by D. V. Ireland (see The Journal, December 2, 1922) as a specialist in the kind of rectal work taught by Ireland.

Albert Lynch, M. D., Fairbury, Neb.—Dr. Lynch was born in 1869 and received a diploma from the University of Michigan Medical School in 1901. Dr. Lynch seems to have been connected with the Koch organization early in the game, for a booklet purporting to be the report of an investigation by C. Everett Field, which was sent out two or three years ago, stated that Dr. Albert Lynch with Dr. Lorenz Dill, Dr. C. Everett Field and Dr. William F. Koch comprised the "committee" which at that time constituted the organization of "Koch Chemical Treatment Administration."

So much for the personnel of the founders of the Koch Cancer Foundation. There has also been organized "Koch Laboratories, Inc.," which is the sole owner and manufacturer of what Koch calls his "antitoxin."

The Anti-Cancer Center of the District of Columbia

will hold its first public meeting in the Floridian Room of the Willard Hotel (Mezzanine Floor) at 8 p. m. Saturday, April 3, 1926.

General Amos A. Fries will preside.

The meeting will be addressed by prominent speakers:

Dr. C. Everett Field, Fellow of the A. M. A.; Director of the Radium Institute, New York City.

Dr. William Wallace Fritz, Fellow of the A. M. A.; President of the Licensed Physicians' Neuropathic Society of Philadelphia.

Dr. Frederick Dugdale, of Boston, Massachusetts, a Director of the Koch Cancer Foundation.

YOU ARE CORDIALLY INVITED TO ATTEND

We also hope to have with us Dr. William F. Koch, of Detroit, formerly a teacher in the Medical Department of the University of Michigan and a professor of physiology of the Detroit College of Medicine. Dr. Koch is the discoverer of a synthetic antitoxin for the prevention and cure of cancer.

Mrs. Charles A. Hawley, *Chairman;*
Mrs. Edmund J. Brennan,
Mrs. Samuel G. Blythe,
Mme. Felix Cordova Davila,
Orlando Ducker, M. D.,
Mrs. Julius Lansburg,
Committee on Education.

Admission free.

More publicity for the Koch nostrum. Note how fellowship in the A. M. A. is capitalized.

The incorporators of the Koch Laboratories are: William F. Koch, President and Director; Louis Koch, Vice President and Director; Fred C. Koch, Treasurer and Director; Clarence Lehr, Secretary and Director.

The Koch Laboratories, Inc., is evidently well controlled by the Kochs. Mr. Clarence Lehr, the secretary, seems to hold some interesting theses. Some are expressed in a letter recently written by him to a physician in Oklahoma. According to Mr. Lehr, "the American Society for the Control of Cancer is simply the sales agency for the surgeons of this country."

It is said that there is a contract between Koch Laboratories and the Koch Cancer Foundation whereby "the antitoxin will be distributed through the Foundation only to its Stockholders and Members." Further, the price of the treatment from the Foundation shall be $110 to both stockholder and member. According to a statement made by Dr. J. W. Stiers of Muscatine, Iowa, (who

To Cancer Patients

There is a definite cure for cancer today, Dr. Everett C. Field, director of the Redium Institute of New York, said before the American Association for the Study and Care of Cancer. The Cancer Association met in conjunction with the American Medical Association.

The compound described by Dr. Field was discovered by Dr. William F. Koch, of Detroit, Radium forms no part of the treatment, he said, but rather it consists of the use of chemicals which "appears to kill the cancer organism by making unsuitable the soil upon which the bacteria must thrive or possibly by a direct action upon the germ itself." Having spent 12 years in cancer research with radium, Dr. Field, declared he had found it along with X-ray treatment and surgery, "pitably inadequate"

This sanatorium will give you 80 to 90 per cent chance of being cured, considering all stages of the disease.

WRITE TO TUCKER'S SANATORIUM, MERIDIAN, MISS., FOR BOOKLET SHOWING PHOTOS OF CURED PATIENTS AND GENERAL DATA PERTAINING TO CANCER.

Tucker's Sanatorium

Dr. J. D. Tucker, Specialist Meridian, Miss.

Drumming up business for the Koch antitoxin.

died in 1924, was said to be using an apparatus put out by the "Electronic Research Laboratories" and is now apparently using the Koch "antitoxin....), the Foundation "specifies as a minimum $300 for the first treatment and $200 for any afterward." The difference between the price charged the Koch disciple ($100) and the price the disciple charges the victim ($300) is presumably to cover the risk assumed by the followers of Koch in injecting a secret mixture into the cancer patient.

The by-laws of the Koch Cancer Foundation provide that only physicians "whose qualifications have met the approval of the Board of Trustees" and who have "treated ten or more cases of cancer by the use of Koch's Synthetic Antitoxin" shall be eligible to become stockholders. The stockholders pay $100, for which one share of stock is issued. "Membership" in the Foundation is to be limited to physicians who are "able to furnish personal and business references satisfactory to the Board of Trustees." Such individuals may become members on the payment of a membership fee of $10 and annual dues of $5. Dr. Koch states further that in addition to the funds that will come into the treasury of the Foundation from the sale of treatments, membership fees and annual dues, he expects to purchase "upwards of $50,000 worth of stock." It is stated further that the "foundation" will from now on "attend to sending out all publicity, pamphlets, literature and the like" and that it is sufficiently financed to carry on the work vigorously for some time to come.

The publicity activities of the Koch Cancer Foundation have already begun to function. The press agent seems to be one V. E. Scott. Mimeographed material is being sent out from New York to the newspapers of the country, prepared in the form of news articles for "immediate release." The headlines are so worded as to catch the eye of any who may be interested in the subject of cancer and especially so as to disguise the advertising feature of these unpaid advertisements. Some of the claims that the newspapers are asked to print in the form of news regarding the Koch treatment are:

"Dr. Koch's antitoxin has successfully cured more than 80 per cent of hitherto hopeless cases."

"One injection is all that is needed in 90 per cent of the cases. We have found that the antitoxin cures every form of cancer and does so with remarkable speed."

". . . the Koch Cancer Foundation, whose physicians have successfully cured more than 80 per cent of hopeless cancer cases during the past two years with the antitoxin discovered by William F. Koch, Ph. D., M. D., of Detroit."

Here, then, is a piece of publicity material puffing a commercially exploited secret remedy which the newspapers of the country are expected to broadcast without charge. In this, a public that is ignorant of the facts is told that a "former Professor of the University of Michigan' (which Koch never was) has a remedy for cancer that will cure 80 per cent of hopeless cases with a single injection!

Editorial Comments

We are publishing in this issue the more important enactments of the Dallas session of the A. M. A. Every medical man benefits by reason of this national activity and by reason of these benefits he should tender his support by becoming a Fellow.

The first day of our annual meeting will be devoted t oSection Programs. Section officers are arranging their programs. The second day will be devoted to general meetings with distinguished speakers limited to thirty minutes each .

The new Olds Hotel at Lansing will be headquarters for our Annual Meeting in September. Reservations for rooms are already being made. Every convenience for our general meetings and section meetings without outside noise or interference is assured. There will be no commercial exhibits.

Notices of delinquency in dues have been sent to each member in arrears. Delinquent members' Journals were discontinued with the April issue and their names placed on our suspended roll. Reinstatement is possible only by paying of dues to County Secretaries.

The manuals on "Periodic Physical Examination," distributed by the State Society to each member, is intended for a desk reference manual. Use it frequently for it contains much that will be of profit to you. Incidentally keep a memorandum of these examinations and in a year it is perfectly proper to inform those you've examined to come in for their annual examination.

We expect to read much of political expounding and campaign promises during the next few months. In connection therewith it will be wise to interview candidates to ascertain their medical and health legislation views. Now is the time to put your legislators on record. Legislative committees have opportunity now to justify their existence.

During May a letter was sent to the Secretary of every County Society requesting that a historical sketch of the County Society be prepared and sent to The Journal. We desire to publish these histories in order that they may be made a part of our records for reference in the years to come. It is desired that these sketches be submitted at an early date as possible.

Our Journal is dependent upon our members for its original articles. They must eminate from our members and as such reflect our professional activity. As we go to press our editorial drawer is nigh empty, hence this invitation for more orig-

inal articles. We welcome practical observations vestigations and studies. The line is drawn at and opinions as well as reports of scientific in- text-book quotations or compilations. Articles will be published in the order of their receipt.

In a recent issue of The Journal of the A. M. A., a member of the Cleveland Clinic sponsored an article on Iodine and condemned Iodized Salt. Inasmuch as our State Society through the officers of our Pediatric Section initiated Iodized Salt this article was called to the attention of Dr. Cowie, whose reply we herewith transmit:

"Editor of The Journal:

"I am very sorry to have kept you waiting for a reply to your letter of some time ago. I have been laid up in the Hospital for a couple of weeks and this is the first day at my mail. I note what you say about Iodized Salt and particularly about the article from the Cleveland Clinic. I will take this matter under consideration right away and write you again. My impression is that the benefits obtained from the Iodized Salt are very much greater than the evils referred to in the article. On the other hand we should be very anxious to have the truth about this matter.

"Thanking you for calling this to my attention, I am,

"Very sincerely yours,

"R. Murray Cowie."

The United States Public Health Service announces the issuance of a publication known as the "Venereal Disease Manual for Social and Corrective Agencies."

There is much evidence which emphasizes the relationship between venereal diseases and feeblemindedness, insanity, dependency, delinquency, crime and other conditions affecting the social structure. Study and investigation has shown the need on the part of social workers, probation officers and others for authentic information on the venereal diseases and their concommitants which so deeply affect society. It was to meet this definite need that the publication was prepared.

In addition to giving fundamental information on the medical aspects of the venereal diseases, their relief and prevention, the manual deals with socio-economic conditions and has chapters on the following: "The Venereal Diseases and the Community"; "Sex Education"; "Legal Aspects of Venereal Disease Control"; "Sex Morality and the Law"; "Juvenile Delinquency"; "Aids in Conditioning Behavior", etc.

The book is designed for use by the following groups: Courts and Probation Officers, Social Workers, Nurses, Visiting Teachers, Jailers and Wardens, Policewomen, Superintendents and Matrons of Homes for the Department, Delinquent and Defective Classes.

The Journal, February 6, called attention to bills pending in Congress to authorize operations under the Sheppard-Towner Act for two years beyond the limit originally fixed for the termination of such activities. The House of Delegates had previously condemned the original act. The Journal, therefore, appealed to constituent societies and other agencies to support the action of the House by protesting to their senators and representatives against the enactment of these bills to extend its life. Such a bill has, however, passed the House of Representatives. In the Senate, the Committee on Education and Labor reported favorably the bill already enacted by the House, but recommended that authority for prolonging operations under the act be limited to one year. This abbreviation of the proposed prolongation of the life of the act was based on the opinion of the committee that the functions taken over by the federal government under the Sheppard-Towner Act were state functions and should be allowed to revert to the states. The evidence offered by the proponents of the pending legislation to justify its enactment, so far as such evidence is available, is of a most general and uncertain character, and much of it comes from interested witnesses. Certainly it is not such as to convince any person accustomed to weigh evidence concerning such matters that the Sheppard-Towner Act has reduced or ever will reduce maternal or infant mortality beyond the reduction that the states themselves might effect. Nor is the evidence such as will convince a careful student of government that the federal government can continue to buy from the states, through subsidies, the right to supervise and control state activities that the federal government under the constitution cannot directly control, without endangering our entire system of government. The proponents of the pending bills frankly admit that the two years' extension they have sought is not sufficient to accomplish the purpose of the act, and that additional extensions for indefinite periods will be required. They are not likely, therefore, to omit any effort to have the Senate reject the recommendation of the committee that the life of the act be prolonged for one year only and enact the bill as passed by the House, providing two years' extension. Those who believe that the Sheppard-Towner Act is essentially pernicious will do well, therefore, to continue their efforts to defeat any legislation looking toward the extension of the act for any period whatever. Action toward that end may accomplish its purpose, and even if it does not, it will tend to support the recommendation of the committee for a one year extension only. Protests, to be effective, should be sent immediately, by telegram or special delivery, as the bill may come up for action at any time.

Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

Editor of The Journal:

I have just read an article in the May 18th Journal A.M.A. by Dr. Harbock of Cleveland on the "Menace of General and Indiscriminate use of Iodized Salt." I wish you would read this article and make an excerpt for the State Journal. We are going to thresh the matter out here in Detroit.

According to the article there is a state law in Michigan making it compulsory to use iodine in

all salt sold here. The conclusions of the article may be true or not, I don't know, but if there is any question about it we doctors ought to know it and some means stopping its use until the truth is known. Yours,

E. J. Bernstein.

Editor of The Journal:

At a regular meeting of the Executive Staff of Nichols Memorial Hospital, held Tuesday, May 17th, I was instructed to write a letter to your body conveying the sincere thanks of our staff and to express the profound gratitude and appreciation we entertain by reason of your action in furnishing legal defense in the case of a local practitioner who was cited before the court recently, on a charge of having made "false and malicious statements calculated to injure the plaintiff."

Our records show the adoption, by unanimous vote of our Executive Staff, of a resolution embodying the above sentiments.

Yours very truly,
R. C. Winslow, Secretary.

Editor of The Journal:

I enclose a copy of a bill entitled "A Bill to strengthen the Harrison Narcotic Act, of December 17, 1924, as amended and for other purposes," S.4085, now pending in the Senate. A Bill identical in its terms, H.R.11612 is pending in the House of Representatives. This bill was discussed at length in The Journal of May 8th, 1926. Two copies of a reprint of that discussion are enclosed herewith.

The bill is pending before the Senate Committee on Finance. In the House of Representatives it is pending before the Committee on Ways and Means, on which your state is represented by Representative James C. McLaughlin. The Committee on Ways and Means gives a hearing on May 20 and 21, and the bill which is an administration measure, seems likely to be pushed to enactment at the current session of Congress if practicable.

The enactment of this bill will impose added burdens on the medical profession. Parts of it seem plainly unconstitutional. For these reasons it seems desirable that this bill should not be enacted. If you concur in this view, kindly communicate at once with your represenative on the Senate and the House Committees. Reprints are enclosed that may possibly with advantage be sent to them.

A copy of this letter is being sent to the President of Your Society.

Yours very truly,
Wm. C. Woodward, Executive Secretary,
Bureau of Legal Medicine and Legislation.

Editor of The Journal:

I enclose herewith copies of the letters received from Senators Couzens and Ferris, in response to my letters to them concerning the Sheppard-Towner Act.

Sincerely yours,
Wm. C. Woodward, Executive Secretary.
Bureau of Legal Medicine and Legislation.

United States Senate
Committee on Civil Service

May 7th, 1926.

Dear Dr. Woodward:

I have your letter of the 4th, sent at the request of Dr. F. C. Warnshuis, Secretary-Editor, Michigan State Medical Society. I also acknowledge receipt of the memorandum to show why the operation of the Sheppard-Towner Act should not be prolonged beyond the date fixed for its termination, namely, June 30th, 1927.

I thing there is very much to be said in favor of many of the arguments contained in your memorandum. With many of them I am in entire accord, but if a mistake has been made, I think it was made in the passage of the act in the first instance. The Committee on Education and Labor of the Senate have already reported the bill out, extending the time for two years, and I think it is the definite conviction of the committee that that should be absolutely final.

The bill has passed the House, as you know, and I have every reason to believe it will pass the Senate.

Very truly yours,
James Couzens. (Signed)

United States Senate
Committee on Education and Labor
242 Senate Office Bldg.
Washington, D. C.

May 6th, 1926.

William C. Woorward, Executive Secretary,
535 North Dearborn,
Chicago, Illinois.

Dear Dr. Woorward:

I have your letter of May 4th, together with a memorandum with reference to the operation of the Sheppard-Towner Act. I am familiar with the fact that the Medical Association condemns this kind of legislation. I condemn the underlying principle, but under existing conditions I feel that it is worth while to extend the bill to June 30th, 1928. I am sorry to be in conflict with the attitude of the Medical Profession.

Cordially yours,
Woodbridge N. Ferris. (Signed)

State News Notes

Dr. J. M. Croman, Jr., and wife are enjoying an extended trip to the Pacific coast. They expect to be away about six weeks.

Dr. H. Berry and wife are sojourning in the Canadian northwest where the doctor owns a large ranch. Before returning to Mt. Clemens the doctor contemplates visiting Alaska.

Doctors C. Shotwell, Frank Starkey and G. M. Livingston, of Detroit, are members of the Post-Graduate Study Club now touring Europe.

Dr. F. W. Sassaman, of Charlotte, has been reappointed for the seventh time as local health officer.

Dr. D. Emett Welsh, of Grand Rapids, is now "Grandpa," a son having been born on May 20th to Mr. and Mrs. D. Emett Welsh, Jr., of Detroit.

Dr. F. N. Smith, of Grand Rapids, is expected to return from Paris the last of June.

Dr. A. W. Hornbogen, of Marquette, is one of the two delegates of the A.M.A. to the dedication exercises of the Murphy Memorial in Chicago on June 10th.

Our Society Business and Activities

HARVEY GEORGE SMITH
EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

CIVIC RESPONSIBILITIES

The problem of civic relationships and responsibilities is confronting every Medical Society. The Minimum Program for County Medical Societies states that each society shall assume new duties, civic duties. A number of societies are having difficulty in fulfilling obligations. Others have discovered proper viewpoints, points of contact and methods of procedure. Alpena, Genesee, Tri-County, Shiawassee, Oakland, Kalamazoo, Lenawee, Wayne and Washtenaw County Medical Societies are among those showing special activity in this field.

The Washtenaw County Medical Society has used the letter method to interest lay professional organizations in its civic responsibilities and its own membership in the assumption of them. The letters are here given in full for the use of other societies. They are as follows:

Washtenaw County Medical Society
Chamber of Commerce Building, Ann Arbor,
Mich., April 22, 1926

Chicken Dinner—Music by Ann Arbor High School Orchestra. Jos. E. Maddy, Director.

Scientific Program:

Chairman—Dr. Theophil Klingman.

Lecture—"Trouble Cases from the Mental," David Clark of Detroit, Chief Phsychiatric Clinic, Receiving Hospital and Professor Psychiatry, Detroit College of Medicine.

Those who know, say Dr. Clark's lecture is not only exceedingly instructive but intensely interesting and entertaining.

Discussion—Dr. Hugh Cabot, Dean of University Medical School; Dr. Jas. D. Bruce, Director Int. Medicine and Chief of the Medical Service, University Hospital.

The enclosed invitation letter is being sent to members of the following groups in Ann Arbor and Ypsilanti: Lawyers, Dentists, Clergymen, Public School Men and Women, Social Service Workers, Registered Nurses, Directors of Community Fund Organizations, and other interested groups.

You will want certain of your friends to hear this lecture. Drop a line to the Secretary, giving their names at once. In any case send in your own place reservation now. We expect an overflow.

Washtenaw County Medical Society
Ann Arbor, Michigan,
April 22, 1926.

Dear Friend:

The Washtenaw County Medical Society holds regular monthly meetings throughout the year.

One of the meetings is set apart for a dinner and special lecture program for our own members and members of allied professioinal organizations of the county. You are on our list. We invite you for Thursday, April 29th at 6:30 p. m. to come to share with us the following:

Program—Same as above.

Theron S. Langford, Secretary.

POST-GRADUATE CONFERENCE

On May 6th, the members of the Northern Michigan County Medical Societies, the Rotarians of Alpena and the Parent-Teacher Associations and citizens participated in a Post Graduate Conference at Alpena. Twenty-five doctors attended the scientific program. They came from Petoskey, Onaway, Rogers and Atlanta, and drove from 30 to 250 miles. Every resident doctor of Alpena was present at the sessions. At noon the Alpena County Medical Society was host to all visiting doctors and to the Rotarians. The ladies of the Trinity Episcopal Church served the luncheon in their own Parish House. Following the luncheon a program of Music and short talks was given by Dr. W. H. MacCracken, Dean of the Detroit College of Medicine and Harvey George Smith, the Executive Secretary.

The Alpena County Medical Society is one of the few medical organizations that has begun to assume civic responsibilities of the community. A demonstration of this relationship to the community was evidenced in the holding of a community program in which the Parent-Teacher Associations, the schools and the County Medical Society co-operated whole-heartedly and frankly. The program arranged was not dictated by the medical profession but was one that the people desired. It was as follows:

Music—Solos by local musicians.

"The Parents' Responsibility to the Child,"
Reverend Forsyth, Dean of Trinity Church.

"The Responsibility of the Community to the Child,"
Reverend West, Pastor of the Methodist Episcopal Church.

"The Health of the Child, How to Preserve, Whose responsibility,"
W. H. Marshall, M. D, Flint.

Three hundred citizens attended the community meeting. All of the Alpena physicians were present. Following the program social and informal features continued, consisting in dancing, visiting and light refreshments.

The Scientific program which was arranged by the Councilor, the Alpena County Medical Society and the State Medical Society, was presented as follows:

12:00—Luncheon.

2:00—"Physical Examination with Demonstration,"
W. H. Marshall, M. D., Flint

2:40—"Fractures, Management of,"
George Curry, M. D., Flint.

3:10—"Therapeutic Procedure in Peptic Ulcer,"
W. H. MacCracken, M. D., Detroit.

3:40—Recess.

4:00—"Orthopedic Corrections,"
George Curry, M. D., Flint.

4:30—"Advances in Therapeutics,"
W. H. MacCracken, M. D., Detroit.

5:00—"Diagnosis of Chest Disaeses,"
W. H. Marshall, M. D., Flint.

Adjournment.

PROGRESS

Thirty County Medical Societies have reported to the State Office that the Minimum Program has been adopted and is being carried out in part or in total. The Societies following the progressive course are:

Alpena
Barry
Bay
Berrien
Calhoun
Chippewa-Luce-Mackinac
Eaton
Genesee
Gogebic
Ingham
Ionia-Montcalm
Gratiot-Isabella-Clare
Jackson
Kalamazoo
Kent
Lenawee
Manistee
Mason
Muskegon
Newaygo
Oakland
Oceana
Ottawa
Saginaw
Shiawassee
St. Clair
St. Joseph
Tri-County
Washtenaw
Wayne

PHYSICAL EXAMINATION PROGRAMS

The County Medical Societies that have conducted special Physical Examination Programs and distributed the Manual of the American Medical Association are the following:

Alpena
Eaton
Genesee
Jackson
Kalamazoo
Kent
Lenawee
Macomb
Mason
St. Clair
St. Joseph
Washtenaw
Wayne

Deaths

Dr. Purvis S. Willson, of Owosso, Mich., died at his home on May 10th, 1926, aged 55. He had practiced in Owosso since 1895. He was beloved by his colleagues as was evident at his funeral on May 13, when nearly the entire membership of Shiawassee County Medical Society was present. He was a member of Owosso Lodge No. 81, F.& A.M., K. of P., Owosso Lodge of Elks, and other fraternal orders.

Dr. Ellsworth Orton, of Pontiac, died May 17, 1926. Dr. Orton was 60 years of age and was born in Essex County, Ontario, and received his early education in Toronto. Although born in Canada he was a member of an American family. Dr. Orton served in the World War and served as a first lieutenant and later was commissioned a major in the medical reserve. Dr. Orton was an active Democrat and was Mayor of Pontiac from 1907 to 1908. At one time he was in charge of the health department of Pontiac and at the time of his death was county physician. He was a member of the various Medical Societies and also several fraternal orders.

In whatever capacity Dr. Orton served he was held in the highest esteem and gave unstintingly of his services, and at the time he was connected with the Health Department he inaugurated and finished a successful campaign for the testing of milk sold in Pontiac. At all times he was in touch with the new methods and advances made in scientific lines. Dr. Orton planned the arrangement for his funeral himself and requested a simple service with military rites and his friends from the American Legion acting as bearers.

In observance of the funeral both county and city officers closed from 1:30 to 3:00 p. m.

County Society News

GRATIOT-ISABELLA-CLARE COUNTY

The May meeting of the G.I.C. was held in the Alma City Hall Thursday, May 13th.

Our out of town guest was Dr. E. G. Martins of Detroit, Proctologist to the Receiving Hospital. The doctor's subject was "The Differential Diagnosis in Ano-Rectal Diseases With Methods of Examination and Treatment."

Some of the main points brought out were, "The reason we miss the diagnosis of ano-rectal disease is because we don't examine the patient; 25 per cent of cancer of the gastro-intestinal tract is found in the rectum; 75 per cent of the people have disease of this region."

A specific diplococus has been found to be the cause of colitis from which a cure has been produced, by a prepared filtrate.

The doctor wound up his talk by showing lantern slides of the methods of examination and treatment. We had the best turn-out for any meeting in recent times. Many remarks were heard that this was one of the most practical demonstrations we have had. E. M. Highfield, Secretary.

KALAMAZOO COUNTY

The regular monthly meeting of the Kalamazoo Academy of Medicine was held April 20, 1926, at the New Borgess Hospital as a clinical meeting.

In the absence of the President the meeting was called to order by the Secretary. Dr. Huyser was appointed to fill the chair until the arrival of the President.

The Secretary's report of the March meeting was adopted as printed in the Bulletin.

Several communications were presented to the Society.

A motion was made by Dr. Bennett, seconded and carried, that a committee be appointed by the President to wait upon the proper officials and see if doctors might be granted special parking privileges in the restricted areas.

Doctors Bennett, Wilbur, Lang and Shillito were appointed by Dr. McNair on this committee.

A motion made by Dr. Bennett that the Secretary be instructed to purchase for each member of the Society registered automobile insignia of the A. M. A., with the name Kalamazoo Academy of Medicine inscribed, from the American Medical Association, was lost for lack of a second. There being no further business to transact, the meeting was turned over to Dr. Adams for the clinical program. In the absence of Dr. Coller, Dr. Wells gave a most excellent clinic for the remainder of the program.

Members of the Society will be very much interested in a letter received by Dr. McNair from Dr. Henry Bixby Hemenway, one of our charter members.

Dr. Rush McNair,
Kalamazoo, Mich.

My Dear Dr. McNair:

I noticed the other day in Science that you had been elected President of the Kalamazoo Academy of Medicine. I congratulate you.

There are few living who helped to organize the Academy, and you may be interested in a brief history.

In 1882 certain questions relative to quackery were referred to a committee of which I was the chairman. I took the position that as individuals we could not afford to deal with the subject, and advised that we form an incorporated Society. The committee agreed and the old Kalamazoo Valley Medical Society instructed me to attend to the incorporation and voted that when the Academy was incorporated the old Society would disband. I drew up the Articles of Incorporation, Constitution and By-Laws, and outlined a crude insignia for a seal. Practically without change they were all accepted by the committee and adopted.

In the Constitution I inserted the word "Librarian." The only fight over the Constitution was over that one word. I insisted that the document was for the future, and that though at the time there was no library sometime it was hoped that there might be. My argument won, and in consequence some refused for years to saying that it was an attempt of the city physicians to get at the expense of the country members.

It will be noticed that the seal indicated that the light for professional guidance must be that which proceeds from the union of original research (Microscope) and the study of literature (book).

Largely as a joke I was elected as the first Librarian. I immediately began to gather a few books which as individuals were beyond our reach, such as the Medical and Surgical History of the war of 1861-64. I made arrangements for the use of shelves in the public library, then located over stores on Main street. When I left Kalamazoo in 1890 Dr. E. H. Vandeusen was elected Librarian in my place. He soon realized the need for better accommodations and the result is the permanent home of one of the very best medical Societies in the United States.

I remember the new President of the Society as a boy who boarded very near me when he went to the Preparatory School, and later as a college student, and still later during his earliest years of medical practice.

It is therefore a special pleasure to know that my child, now grown to exert a wide reaching influence, is to be under the guidance of an old personal friend.

For some time I have been located here in Springfield. My work is chiefly confined to the handling of certificates of death. Every such certificate in this state passes through my hands for classification as to occupation and cause of death, and for scrutiny as to legal form, suitable for evidence.

My old friends may be interested to know that my "Legal Principles" has received general acceptance by the Bench and Bar all over the United States, and has been recognized abroad. In one case before the Supreme Court, it was cited in each brief in the original hearing and rehearing. The only direct quotation in the decision was an article of that book and the decision followed my reasoning.

Very truly yours,

Henry B. Hemenway,
620 Amos Avenue, Springfield, Ill.

IN MEMORIAM

It so happens in the cycle of years, that men in every community and from all groups are forced to lay aside the earthly implements of their craft, forced to drop the keys or the burdens of life and so it occurs again that by their families and a small circle of friends, the loss is keenly felt and they are sincerely mourned.

Much less frequently, it happens that an entire community is shocked and grieved at the passing of one single individual. When this occurs, it is proof positive that that individual has largely forgotten himself in the service of others.

Our associate, Dr. Dan. H. Eaton, accepted manfully the rigorous duties which his profession demanded that he assume, but though comparatively young in years, the cord of life snapped under the severe strain placed upon it as he conscientiously tried to restore the health and save

the lives of those who intrusted themselves to him and now, we mourn his loss.

The Kalamazoo Academy of Medicine finds itself inadequate to express to the family of our deceased associate the heartfelt sympathy each individual member feels for them in the loss of one whose memory will long be cherished by us, his professional brothers, as a skillful physician, a true friend and an exemplar citizen.

Signed—

The Kalamazoo Academy of Medicine

Walter denBleyker,
Edward P. Wilbur,
Committee,

SHIAWASSEE COUNTY

The April meeting or the Shiawasse County Medical Society was addressed by Harvey George Smith, who spoke on various medical topics, such as the mysticism of the orient, the lives of the great scientists, and the attitude of the public today in regard to medical science, particularly concerning periodic physical examinations.

Mr. Smith also kindly gave a report of the County Secretaries meeting recently held in Grand Rapids and which was largely prepared for by him.

The May meeting of the Society was held in the city hall auditorium, and was addressed by Dr. C. G. Darling, of Ann Arbor, President of the State Medical Society, who spoke on "Signals." This subject he made very interesting and reviewed to a limited extent the symptomatology of disease, together with the various aids to diagnosis which had been perfected from time to time, especially Roentgenology. This branch of medical art and science was the subject of a paper read before the Society preceding Dr. Darling's address by Dr. J. O. Parker, of Owosso, and which paper was referred to many times in Dr. Darling's talk. It was a very complete resume of the subject, and up to date, and the doctor gave some interesting descriptions of recent apparatus seen by him in New York City.

The May meeting of the Shiawassee County Medical Society was held at the city hall auditorium in Owosso on the evening of May 4th.

Dr. J. O. Parker, of Owosso, presented a paper on "The Present Status of Roentgenology," covering the latest improvements in this science and art.

Dr. C. G. Darling, President of the State Medical Society was the guest of honor and gave an interesting address on "Signals." He was made an honorary member of the society by unanimous vote.

The next meeting will be on June 1st.

W. E. Ward, Secretary.

HOUGHTON COUNTY

The Houghton County Medical Society held its regular monthly meeting at the Scott Hotel, Hancock, Tuesday, May 4th, with sixteen members present. After reading of the minutes and allowing of bills, it was voted by the Society to refund to the members who have paid their assessment of three dollars.

The matter of a public meeting in regard to physical examination of the apparently healthy was taken up, and it was moved and supported that Dr. A. F. Fischer act as speaker at this meeting which is to be held at our regular meeting time in July.

The first paper on the program was a "Report of the American Medical Association at Dallas, Texas, by Dr. Simon Levin of Houghton. Dr. Levin covered the meeting very thoroughly. He attended the majority of the surgical sessions and gave some very interesting reports of recent work in surgery.

The next paper was read by Dr. G. C. Stewart, on "Parasitic Origin of Carcinoma." Dr. Stewart gave the findings of Doctors Glover of New York, Scott of Butte, Montana, Lawden and McCormich of Toronto. This paper elicited much discussion, especially regarding Dr. Koch's cancer cure which recently has had much publicity in The Journal.

The Society then adjourned to lunch.

Yours very truly,

Dr. G. C. Stewart, Secretary.

WAYNE COUNTY

The first meeting to be held under the auspices of the Maternal Welfare Committee for the State of Michigan took place on May 6th before the Highland Park Physician's Club. Dr. George Clark Mosher, of Kansas City, Mo., a pioneer in the cause for better obstetrics, delivered a masterly address on "Indications for Cesarian Section," before a large audience of both local and out of town physicians. The occasion was made notable by the excellent fashion in which this dean among obstetricians handled his subject, and served as a most auspicious beginning for the work of this committee.

The chairman of this committee, Dr. George Van Amber Brown, announces that the campaign to further the cause of good obstetrics will be carried to each county in the state, with at least two meetings of a similar nature to be given before each County Society.

The Society enjoyed a real treat April 20th, when it was addressed by Dr. Charles H. Frazier of the University of Pennsylvania on "Surgical Lesions Originating in the Structures of the Pituitary Body."

On April 27th Dr. Wm. Cassidy presented a paper on a "Resume of Successes and Failures in Surgery of Cranial, Spinal and Peripheral Nerves."

Dr. W. D. Gath, professor at the University of Indiana School of Medicine delivered a very interesting talk before the Society on May 14th on recent work of his concerning disease of the small intestine.

The last meeting of the Detroit Tuberculosis Research Society was held Wednesday evening, May 12th, at the Hotel Tuller.

The Detroit Academy of Surgery met May 12th at St. Mary's Hospital. The program consisted of papers by Dr. Leo Dretzka on "Brain Injuries"; Dr. Wm. J. Cassidy on "Foreign Bodies in the Esophagus and Trachea", and Dr. L. J. Condit on "Open Reduction of Fractures."

CALHOUN COUNTY

The fifth regular regular meeting of the Calhoun County Medical Society was called to order in the dining room of the Post Tavern by the Vice Presi-

dent , Dr. W. F. Martin, at 8 p. m. following dinner.

The minutes of the previous meeting were approved as printed in the Bulletin. The bills were presented as follows:

Phoenix Printing Company	$7.85
Post Tavern Company	1.50
Dr. L. E. Verity, Secretary	1.50

It was moved and supported the bills be paid.

The applications of Doctors J. K. M. Gordon, Bruce Whyte, and L. A. Tarbell were given their second reading. It was moved and supported that the rules be suspended and the Secretary cast the vote of the Society in favor of their election to membership. The Secretary cast twenty ballots and the above members were declared elected into the Calhoun County Medical Society.

The Scientific Team of the Society was appointed by the President as follows: Dr. W. F. Martin, Dr. A. F. Kinglsey, Dr. C. R. Hills, Dr. R. C. Winslow, and Dr. A. E. McGregor. A committee on physical examination was appointed by the President and consists of the following members: Dr. Jos. Rosenfeld, Dr. A. T. Hafford, Dr. G. B. Gesner, Dr. L. S. Hodges, Dr. B. G. Holton.

Dr. Martin introduced the first speaker, Dr. R. L. Kahn of Lansing, who gave an address on the "Precipitation Test for Syphilis." This proved to be very practical and was thoroughly discussed. The second speaker, Dr. R. E. Cummings of Detroit, read a paper on "New Aspects in the Treatment of Polycystic Kidneys." This paper was illustrated with lantern slides.

The meeting adjourned at 9:30.

L. E. Verity, Secretary.

GRAND TRAVERSE-LEELANAU COUNTY

The regular monthly meeting of the Grand Traverse-Leelanau County Medical Society was held May 4th at the General Hospital.

After the routine business of bills, communications, etc., was disposed of, the discussion of "Insulin" was taken up, led by Doctors Swartz and Sladek. The subject was very interesting, and all present took part in the discussion.

Dr. George F. Inch, for many years associated with the State Hospital at Kalamazoo, now superintendent of the Traverse City State Hospital, is our latest new member, having transferred from the Kalamazoo Academy of Medicine. Welcome Dr. Inch.

Dr. Frank Holdsworth, who spent the winter on the Pacific Coast, has returned. Dr. F. P. Lawton, also a California sojourner, will return in a few days, much improved in health.

G. A. Holliday, Secretary.

ALPENA COUNTY

The regular meeting of the Alpena County Medical Society was held at the New Alpena House Thursday, April 15th, at the noon hour. Following dinner, Dr. C. M. Williams read a paper on "Light Therapy." The paper took up the medical application of the rays of light of short wave lengths. The paper was illustrated with the mirroscope.

The Post-Graduate Medical Conference was held in Alpena Thursday, May 6th. The speakers that participated on the program were Dr. William H. Marshall of Flint, Dr. McCracken of the Detroit Medical College and Dr. George Curry of Flint.

Luncheon was held at noon, the following doctors being present: Doctors VanLeuvan and Mast of Petoskey, Dr. Shaver of Boyne City, Dr. McKinnon, Atlanta, Dr. Carpenter, Onaway, Dr. Monroe, Rogers, Dr. Miller, Harrisville, Doctors Lister and Schmaller of Hillman and Doctors Bell, Cameron, McDaniels, O'Donnell, Bertram, Burkholder, Jackson, Foley, Secrist and Williams of Alpena. The Rotary Club of Alpena was the guest of the Medical Society on this occasion. Harvey George Smith gave the address at the luncheon, the subject being "Russia." Vocal numbers and a short talk by Dr. McCracken added to the pleasure of the occasion.

The evening meeting was held in conjunction with the Parent-Teacher Association in the High School Auditorium. The question of the physical and moral welfare of the school child was discussed by Dr. William Marshall, Rev. Julian West and Rev. Warner Forsyth. Following the public meeting the Parent-Teacher's Association held a delightful reception in the school gymnasium.

These clinical conferences are a great inspiration to our local members and we appreciate very much the courtesy shown by the State Medical Society in providing such a fine program for our meeting.

C. M. Williams, Secretary.

MACOMB COUNTY

I am forwarding a rather tardy report concerning activities of the Macomb County Medical Society—trust they will be of interest, at any rate they will indicate that although up to date we have been apparently moribund as far as the County Society news column is concerned, we are still functioning more or less vigorously.

The new officers for the year are: President, Dr. F. K. Lenfestey, Mt. Clemens, Mich.; Vice-President, Dr. W. H. Norton, Mt. Clemens, Mich.; Treasurer, Dr. W. J. Kane, Mt. Clemens, Mich.; Secretary, Dr. A. A. Thompson, Mt. Clemens, Mich.; Delegate, Dr. Greene, Richmond, Mich.; Alt. Deleg., Dr. Curlett, Roseville, Mich.

The first meeting of the year was held January 5th at the Colonial Hotel, Mt. Clemens, with 14 members present. Report of Treasurer was heard, showing a balance of $250.00 in bank with two outstanding accounts—flowers for funeral of Mrs. Seaman, wife of Dr. Seaman of New Haven, Mich., and contribution to the B. D. Harrison fund—both of these accounts the Treasurer was authorized to pay.

A membership committee consisting of Doctors Croman, Sr., Norton and Kane was formed.

Owing to the apparent beginning desire of the hotel proprietors and bathing interests of the city to co-operate with the physicians a committee on foreign relations consisting of Doctors Lenfestey, Folsom and Perrsons was formed whose duty it would be to meet with the various interests as the occasion arose.

Following luncheon a very interesting paper on "Asthma" was read by Dr. Perrson which was discussed at length.

The February meeting was held at the Colonial Hotel at 7:30 p. m., February 3rd. At this meeting

the dentists of the county were present as our guests. There were 20 doctors and 10 dentists present, Dr. Lenfestey in the chair.

Following the usual excellent dinner a paper "Focal infection from a Dental Viewpoint" was read by Dr. Barnet Malbin of Mt. Clemens, the discussion of which was led by Dr. J. M. Croman, Jr., for the physicians and for the dentists by Dr. L. F. Rutter. Following this a general discussion of the paper took place by both doctors and dentists and brought forth some very interesting and useful information.

The regular March meeting was held March 5th at St. Joseph's Hospital, Mt. Clemens, at 12 o'clock, noon. There were 14 members present.

At this meeting a most instructive clinic was given by Dr. A. W. Wehnkel of Detroit, who conducts the monthly T.B. Clinic in this city. Dr. Wehnkel read a paper on "Tuberculosis in General," and followed by presentation of cases and demonstration of X-ray plates.

Following this the meeting adjourned to St. Joseph's Sanitarium where a very fine luncheon was served.

The April meeting was held April 6th at 7:30 p. m., at the Colonial Hotel, Mt. Clemens, 12 members present. Minutes of the previous meeting read and accepted. Treasurer's report heard. At this time there were 13 members delinquent in regard to dues.

A letter was read from Oakland County Medical Society asking to give a program before our Society in accord with the Minimum Program as laid down by the State Society. The Secretary was instructed to communicate with Oakland County Secretary and arrange date.

It was also decided that in the near future to hold a special meeting at which time a paper, "Therapeutic Uses of Mineral Waters as Brought Out by Original Research" would be read by Dr. G. A. Perrson. This paper will be discussed by several men from Lansing and Detroit.

With this in store and our meeting with the Oakland County Society coming along we are looking forward to some very interesting and instructive gatherings in our Society.

Alfred A. Thompson, Secretary.

MUSKEGON COUNTY

The Muskegon County Medical Society met April 30th at the Century Club with 30 members present. Following the banquet those present had the pleasure of listening to Dr. Thomas Gordon of Grand Rapids talk on "Birth Injuries." The talk was very instructive and covered the subject. The subject was discussed by Doctors Hartman and D'Alcorn and questions asked by Doctors G. L. LeFevre, Jackson, Wilson and Olsen. Dr. Gordon was then excused that he might continue on his way to the trout stream.

Dr. R. J. Harrington informed the Society that the Woman's Club requested that a pre-natal clinic be started by the city. This request was referred to the City Welfare Board and held up until it could be presented to the County Medical Society. After much discussion a motion was made, seconded and carried that the Medical Society go on record as opposing these clinics. The President then appointed Doctors Jackson, Risk and Teifer to write the Welfare Board and the Woman's Club expressing in a nice way of opposition and our reasons for such action.

Dr. A. W. Mulligan was elected to membership in our Society, making 56 active and four honorary members.

At a meeting held in the banquet room of the Occidental Hotel on the evening of May 14th, 31 members were present. The regular order of business was dispensed with, and the evening was given over to our guests, Dr. James T. Case and Dr. Gordan of Battle Creek. Dr. Case spoke on "Chronic Obstruction of the Small Intestine." His excellent talk was demonstrated with lantern slides. The talk was freely discussed and the discussion closed by Dr. Case. Dr. Thornton then introduced Dr. Gordan, who spoke on the "Indications, Diagnostic and Therapeutic Value of Iodized Oil in Bronchitis, With Technic of Administering." Many lantern slides showed the iodized oil in bronchial cavities, opaque to the X-ray. Many questions were asked of Dr. Gordan showing that there was much interest in the subject.

The meeting then adjourned.

P. S. Wilson, M. D., Secretary.

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

EMERGENCY SURGERY—George De Tarnowsky, M.D., Chicago. Price $7.50. Lea & Bebiger, Philadelphia.

At first we were hopeful of a new, standard, practical presentation of guiding principles in emergency or rather, industrial surgery. We are disappointed for after all is said, this text is but a compilation of generalities, the principles outlined in military surgery (many of which we are still endeavoring to cause doctors and surgeons to forget) some war history cuts of methods, etc. In treatment we find much that is desired omitted—that which is imparted is obtainable in surgical texts. This text is a good war history of what was done but its contents is of but little aid to those desiring aid in emergency, accident surgery.

ERROR OF BASING SERUM DIAGNOSIS OF SYPHILIS ON KAHN REACTION ALONE

Sigmund S. Greenbaum, Philadelphia (Journal A. M. A., April 24, 1926, expresses the opinion that the serum diagnosis of syphilis is best served by using both tests as a routine. In his experience, both tests agreed as far as positive or negative were concerned in from 96 to 97 per cent of the cases. It is frequently observed that the two reactions vary in the degree of positiveness, but it is impossible to compare them accurately on this basis, because they vary so greatly in technic and the immunologic principles involved. Nor is this a matter of much clinical importance; and it is of infinitely less importance than the question of a true and specific positive or negative reaction regardless of the degree of positiveness.

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Original Articles

A BRIEF STORY OF DISEASE*

J. H. DEMPSTER, M. D., F. A. C. P.
DETROIT, MICH.

"Ring Out Old Shapes of Foul Disease"
Tennyson.

Among the primary instincts of man are self-preservation and the desire to perpetuate the species. Self-preservation demands food and shelter; it also involves the struggle against those hidden agents that would tend to destroy the body and to result in death. The importance of disease as an adverse economic agent, has never been adequately determined though it has been often too keenly recognized.

In studying the history of disease we note a greater number of diseases the nearer we approach the present. This is, of course, due to medical discoveries and the development of diagnostic methods. From our viewpoint the importance of disease depends upon our contact either socially or as individuals. Bubonic plague would, therefore, have only an academic rather than a vital interest to the majority of Americans. In a recent survey covering a period of five years made in New York City it was found that in examination of the cases of illness among 133,000 workers, 47 per cent of the illness was due to respiratory disease. We might fairly assume that a survey among workers in Detroit would show similar high incidence of disease affecting the respiratory tract. This finding has been corroborated by Raymond Pearl who has shown that the organs of the human body vary greatly in their efficiency—unlike the one horse shay. He claims that the organs which have advanced least in the course of evolution, such as the alimentary tract, are those which break down most frequently and also that parts of the embryonic structure, which showed the highest specialization, such as the skin and central nervous system show the greatest ability to withstand the wear and tear of life. Considering the large number of deaths of infants from forms of enteritis, diseases of the respiratory system come first in accounting for classifiable deaths. The heart and blood vessels stand third; the nervous system and sense organs fourth; kidneys and excretory system fifth; primary and secondary sex organs sixth; skeletal and muscular sfstem seventh; skin eighth; and endocrine system last. Again the respiratory and digestive systems are more exposed to direct infection from the air and from foods than any other system of the body, a fact which would also tend to account for greater mortality from this cause.

*Read in part before the Medical section of the Wayne County Medical Society April 13, 1926.

DISEASE IN PREHISTORIC TIMES

Disease, it is needless to say, began in prehistoric times. It undoubtedly originated in the antagonism between two forms of life and is therefore almost as old as life itself. The visible evidence of disease extends back to the late paleozoic era. During earlier periods animals are said to have been immune. Of course, the farther back we go in Geologic time the scantier and more unreliable are the records in the rocks. It is supposed that early forms of life were practically immune to disease, that the later breaking down of the immunity was due to the development of race senescence. A notable sign of racial senility is undue spinesence, the tendency to produce excessive spines, bones, or other hard or hairy materials. Some animals such as the Irish stag or elk have become extinct through racial senescence implied in the great overgrowth and spread of their antlers. "In general," says Professor Lull, "this seems like growth force run riot, as though with lessening vitality incident to racial old age, it is no longer adequately controlled." This is seen for instance in such animals as brachiopods, crinoids, or the many bizarre forms of dinosaurs. Minot has defined old age as an accumulation of changes which began dur-

ing the earliest youth and continue throughout the entire life of the individual. Old age is not a disease and therefore cannot be cured. (Moodie) "According to present evidence, disease is from the geological standpoint relatively recent in its origin, and has afflicted the inhabitants of the earth for only the last one-quarter of the earth history—that is, from the last twenty-five million years out of a possible one hundred million years."

The oldest known fractures with healing and callous formation are illustrated by a left radius of an ancient reptile known as Dimetrodon. The specimen is in possession of the University of Chicago. It was found in the Permian beds of Texas and is probably not less than twenty million years old. A comparison of the method of bone repair of the Permian age with that of today shows the process to be similar. Fractures of the dinosaurs of the Meszoic have been collected. Even at this early time are also found evidences of arthritic les ions, of caries and necrosis. In animal life since this period lesions due to trauma and disease are plentiful.

ANTIQUITY OF BACTERIA

There are evidences of bacteria as far back as the Devonian period. Their spores have been found in thin sections of rock. Furthermore we have the evidence of bacterial action, necrosis and osteomyelitis being bacterial diseases. Osborn says: "A bacterialess ocean would soon be uninhabitable both for plants and animals; conversely it is probable that bacteria-like organisms prepared both the earth and the ocean for the further evolution of plants and animals and that life passed through a very long bacterial age." The same writer goes on to say that in the origin of life, bacteria appear half way between what he terms the chemical precellular stages and the chemistry and definite cell structure of the lowest plants. They are classified more by their chemical reaction than by their shape owing to their minute size and often actual invisibility. The discovery, according to Osborn, of the chemical life of the lowliest bacteria marks an advance towards the solution of the problem of the origin of life as important as that attending the long prior discoverer of the chemical action of chlorophyll in plants.

The lowest bacteria known as "primitive feeders" possessed the peculiar faculty of finding food and energy in a lifeless world deriving energy both directly and from inorganic chemical compounds. These so-called primitive feeders are classified among the nitrifing bacteria since they take up nitrogen from ammonia compounds. They are said to have abounded on the lifeless earth and to have prepared both the earth and waters making them chemically suitable for the lowly forms of plant life.

From the point of view of geologic time, bacteria have been proven to be of great antiquity. Walcott announced in 1915 the discovery of fossil bacteria found in a section of chlorophyll-bearing plants the age of which he estimated to be about thirty-three million years.

The lowest bacteria, it will be seen, were not parasitic in character. The parasitic bacteria began with their symbiotic relations with other bacteria and finally extended to include all animal and plant life. It was not until bacteria took on their parasitic character that we have pathogenic forms. The pathogenic bacteria represent only a small portion of bacterial flora. The greater number are benign and a positive necessity without which animal and plant life would cease to exist.

As a result of a study of plant and animal material, Renault announced the presence of bacteria in the middle paleozoic. These micro-organisms produced disintegration of dead tissue and were not pathogenic.

In the studf of prehistoric infections the student is of necessity limited in his quest to those diseases which affect bone, particularly those that are manifest in increased density, such as bone proliferation. Soft tissue disease is lost to study. Without doubt there were great epidemics that had worked havoc among prehistoric men, diseases of which from their very nature no evidence remains. The pathology that has come down to us from prehistoric times denotes chronicity. Bone changes sufficient to register in an X-ray plate are more or less the result of chronic process. Osteomata or bone tumors have also been noted among extinct vertebrates.

FRACTURES ABOUND AMONG FOSSIL REMAINS

Moodie, who has made a study of the antiquity of disease has found fractures plentiful among fossil vertebrates. Multiple arthritis and necrosis have been found in bones of extinct animals. This writer mentions the presence of opisthotonos as a phenomenon that is not confined to the human race. Opisthotonos is that peculiar bowing or arching of the vertebral column due to spasm. This in the skeleton of extinct vertebrates would indicate that death had been caused by some condition which produced a profound spasticity.

It is well known that certain parts of the United States were at one time occupied by a race commonly known as mound builders,

from the huge earthworks created by them. Little is known of these prehistoric people. Early explorers were unable to obtain any information from the American Indians concerning them. The mounds which they built along the valleys of Ohio rivers and elsewhere contain the whole story. The mound builder tribes were evidently static rather than nomadic in their habits. They must have been at one time a vigorous race. The mounds were for purpose of religion, for burial and for fortification. The Ohio mounds have been so extensively explored that Dr. Means, my source of information, had at his disposal for X-ray study nearly five hundred skeletons. An X-ray study of the bones showed evidence of bone disease and fractures as well as wounds from such weapons as spears and arrows. Such diseases as tuberculosis that cause decalcification of bone would not directly show, though Means discovered what he interpreted as Pott's disease of the dorsal vertebrae, manifest by the erosion and coalescing of two adjacent vertebrae. He was, however, able to show definite evidences of bone syphilis. Syphilis is said to have been prevalent in Haiti at the time of the discovery of America and was introduced into Europe by the sailors of Columbus on their return to Italy. Doubtless the mound builders of Ohio, through such commerce as existed at the time, came in contact with the Gulf of Mexico and the islands therein, which would account for the presence of the disease. Coxa Vara was also found in femurs which was presumably due to rickets. Hypertrophic arthritis was found in many instances. Two tibias were examined which showed evidence of arthritis deformans. A humerus was discovered which showed a definite healed osteomyelitis. Many fractures were found, the healed results of which compared favorably with the average before the use of the X-rays became general.

The diseases of prehistoric man which lend themselves to radiographic study are practically the same as those which prevail at the present time. Pathological conditions among ancient vertebrates resemble modern forms.

ATTEMPTS TO INVESTIGATE PAIN

Along with the study of prehistoric disease we might appropriately include prehistoric therapeutics. Surgery undoubtedly had its beginning before medicinal treatment, at least if we are to go by the only evidence available. Prehistoric human remains show the results of many attempts towards the alleviation of pain. Primitive surgery had its origin in conjunction with the religious practice of shamanism. The shaman was the medical man or priest. The belief that possessed the mind of the primitive savant was that in his surgical interventions he was letting out evil spirits; or his efforts were effective in appeasing an angry god. The shaman was able not only to drive off spirits which brought sickness and misfortune but he was able also to invoke others which conferred health and success. Headache was as troublesome to primitive man as it is to men of the present day. The treatment consisted of boring a hole through the skull to let the demon out. Skulls have been found in which several holes had been bored showing thereby inefficiency of the first operation. Trephining is, therefore, probably the most ancient surgical operation. It was frequently performed, 10,000 years ago in Neolithic times. This practice has been found in areas as wide apart as western Europe and North and South America. Broca thought that prehistoric trephining was performed in order to relieve insane persons of so-called demons. Evidence has been gathered showing the use of the cautery. Finger amputations and other mutilations have been found drawn on the walls of a cave in Spain at a time estimated at possibly 25,000 years ago. Amputated fingers and hands have been found in great numbers on the walls of paleolithic caves. The sacrifice of bodily members was doubtless to appease some angry diety.

Moodie showed that trephining was the most highly developed surgical art in Peru in the time of the Incas. The instrument used in performing the operations was a sharp edged stone, the process being one of cutting and scraping.

TUBERCULOSIS

"While meagre phthisis gives a silent blow,
Her strokes are sure but her advances slow,
No loud alarms nor fierce assaults are shown,
She storms the fortress first,
Then takes the town."—Garths Dispensary.

Tuberculosis is perhaps one of the most widely known diseases. Its ravages have not been limited to any time or place. It is older than civilization itself. Tuberculosis has been the scourge of all peoples as far back as human records go. When a disease has been endemic in a community for a long time, it tends to lose its virulence and to become milder in character. This fact—a sort of survival of the fittest—coupled with results of scientific study of the disease, has rendered tuberculosis less a menace today than at any other time in human history. The known incidence of tuberculosis dates back over two thousand years B. C. In the code of Hammurabi written 2250 B. C., there is a reference to a disease which is presumably tuberculosis. The Hebrew race doubtless developed the disease very early, as they seem to have acquired a greater immunity to it than has any other race. It is thought at least one of the plagues that afflicted Egypt during the Exodus was tuberculosis.

The earliest record of tuberculosis known to

us in India is thirteen centuries before the Christian era where pulmonary consumption and swelling of the glands of the neck were recognized as a disease entity. About the middle of the sixth century B. C. it had been recognized among the Chinese. The early Greeks recognize the clinical aspect of what we now call tuberculosis, and labelled it with a name, "phthisis" which means "wasting away." It is needless almost to say that the bacterial origin of the disease was not recognized by the ancients. The Latin word consumere, to burn up, or its derivative "consumption" is descriptive of the disease from the observations of the early Romans.

The Greek idea of tuberculosis is contained in the writings of Hippocrates. These writings may be taken to fairly represent the Greek thought of the day. The physicians in Rome were largely Greek physicians and for this reason we have the Hippocratic influence on Roman thought.

Hippocrates in the following paragraph gives a rather lucid account of tubercular pleurisy and empyema, or lung abscess.

"Tubercles also form in the lung: when phlegm or bile is collected there, it rots; and so long as this remains hard it produces a light pain and dry cough; but when it has ripened, the pain becomes quite acute both in front and in the back and heart and a severe cough seizes the patient. If maturation and rupture are very prompt and the pus finds a way out and is fully expectorated and if the cavity in which the pus has formed contracts and dries up, the patient gets completely well. On the contrary, even when there is prompt ripening, rupture and emptying out, and the cavity does not dry up completely and the tubercle furnishes pus on its own account, the case is fatal; for the phlegm flowing from the head and from the rest of the body into the tubercle rots, becomes pus and is expectorated; and from this the patient perishes and he succumbs to the looseness of bowels following the happenings which I have enumerated in preceding cases; the patient retains his full consciousness in all matters and in every way; he dries up and expires, all the veins of his body closing up just as if the blood had been consumed by the fever; and sometimes on account of the duration of the disease, the severity of it, the virulence of it in the beginning and the complications which have arisen. In cases in which the rupture cannot occur in good time, neither spontaneously nor through the application of remedies, the patient melts away with the most intense pain, lack of nutrition, cough and fever and ordinarily succumbs. When the pus gets egress at a time when the patient is already emaciated and in bed he has not the slightest chance of recovery and death comes on in the same manner. Even when ripening and rupture are quite rapid but the pus as it rots pours over the diaphragm, the patient for the time being appears to be much relieved; but as time goes on and later when the pus has been fully expectorated, the cavity which contained it contracts and is dried up, and the patient gets well; but alas! after a long time the patient becomes weak and is not able to expectorate; one operates, either by a cauterization or by incision; the pus is evacuated and at first in this way also it appears that relief has been obtained, but the end of the disease has not been reached nor will it be except in the same manner as indicated in the preceding case."

The Greeks we see discovered tubercles and connected them with disease of the lungs. They recognized empyema, pleurisy with effusion, pneumo-thorax and pulmonary hemorrhage. They anticipated our modern treatment of effusions in the pleural cavity, namely, drainage. Hippocrates goes into detail in describing the operation.

THE INFLUENCE OF GALEN

Galen (130 A. D.—200 A. D.) was born in Greece and wrote in the Greek language; yet he became thoroughly Roman as he had spent most of his life in Rome. He observed every phase of tuberculosis. His writings not only on tuberculosis but on every other phase of medicine were so complete that he had a more or less paralyzing influence on subsequent centuries so that there had been very little progress in the knowledge of tuberculosis between the third and seventeenth centuries. During the period of the Dark Ages so-called, Galen continued to be the authority on medicine.

Rhazes in the tenth century repeated the views of Hippocrates and Galen on tuberculosis. Maimonides, a Jewish physician of the twelfth century, recognized some relation between the pearl disease of the cattle and tuberculosis from his supervision of the meat of animals for the Orthodox Jews. Our first meat inspection had therefore a religious origin. Maimonides prescribed rules for the use of flesh among his people. Benedictus in the sixteenth century practically reiterated what had been said by Hippocrates and Galen. Tuberculosis according to him came from hemoptysis. As his predecessors had done he confused cause with effect.

TUBERCULOSIS SPREAD FROM EAST TO WEST

Tuberculosis appears to have spread from the east to the west and northwest. In the Roman references to the barbarians the vigor of these races rather than their weakness by disease was always commented upon. Caesar in his conquest of the Gauls and Britons and in his Germanic wars described his foes as of giant stature and as being particularly agile in battle. Doubtless their virility was due in large measure to their isolation. One recalls Caesar's account of the Belgians whom he describes as possessing great prowess, due he says to the fact that merchants less often visit them and bring them those things which tend to weaken the mind. The peoples which were earliest conquered by the Romans were the first to achieve relative immunity from tuberculosis. The Roman conquest as we know extended northward to westward to include England. It is a noteworthy fact that the Irish who were never conquered by the Romans are more disposed to tuberculosis than either the English or the French.

Sylvius (1648-1672) Professor of Medicine in the University of Lyden in his autopsy work found not only tuberculosis in the lungs but also in the lymphatic glands. The first feature of the observations of the ancients was, that, while recognizing various aspects of the disease they failed to note the common origin of such disease entities as pulmonary tuberculosis and bone and glandular involvement. Sylvius was the first to associate enlargement of the lymphatic glands with tuberculosis. He believed in what he termed the hereditary nature of this disease, a theory which has been current to within recent times. Regarding the tubercle he says: "I do not hesitate to credit these tubercles with being the hereditary and fatal predisposition to consumption to certain families even though they are not encountered anywhere else in a form in which they can be outwardly recognized." Sylvius recognized the relation of the lymphatic glands to tuberculosis and concluded that the glands were present in the body in a healthy condition but so small as to escape detection. He also recognized the contagiousness of the disease. Speaking of contagion as a causative factor he says: "According to it the air expired by consumptives has been brought close to the mouth and nose and is drawn in and in this way offensive and irritating emanations are continually carried from the affected person to others, especially relatives, and when these are finally infected with the same poison they also fall into phthisis."

GALEN'S INFLUENCE WEAKENS

Late in the seventeenth century when autopsies began to be performed more frequently, confusion resulted between the work of Galen and the appearance of the tissues found at autopsy. The medical profession of the time became divided between the adherents of Galen and the adherents of Sylvius. Strange to say at this time (1624-1689) Thomas Sydenham the English Hippocrates preferred to follow Galen rather than his contemporary Sylvius. Boerhaave also clung to the teachings of Galen. Morgagni (1682-1771) held to the multiplicity of the causes of tuberculosis and questioned the relation of tubercles to the lymphatic glands. He mentions that "one or the other lung abounds in hard tubercles bordering on a white color mistaken for glandular bodies." He does not associate these with tubercles. By the aid of the X-rays it is possible to show these tubercles and also dense calcified spots with great clearness.

Any person who contributed to our knowledge of disease through refinement of diagnosis would be entitled to consideration in any historical sketch. In this connection are two names Auenbrugger whose epochal work on Percussion was published in 1761 and Laennec whose "Treatise on the Diseases of the Chest and Mediate Ausculation" appeared in 1818. Auenbrugger's work on percussion was published after seven years' observation and testing the value of the method. Laennec's contribution to our knowledge of tuberculosis was the greater. His paper is about forty five pages in length. In his introduction he tells us how he came to invent the stethoscope. "In 1816," he says, "I was consulted by a young woman laboring under general symptoms of a diseased heart, and in whose case percussion and the application of the hand were of little avail on account of the degree of fatness. I happened to recollect a simple and well known fact in acoustics, and fancied it might be turned to some use in the present case. The fact I allude to is the great distinctness with which we hear the scratch of a pin at one end of a piece of wood on applying our ear to the other. Immediately on this suggestion I rolled a quire of paper into a kind of cylinder and applied one end of it to the region of the heart and the other to my ear and was not a little surprised and pleased to find that I could thereby perceive the action of the heart in a manner much more clear and distinct than I had ever been able to do by the immediate application of the ear." Laennec's work is divided into three parts; the first is concerned with methods of diagnosis of diseases of the chest; the second, with diseases of the bronchi, lungs and pleura and the third with the heart and its appendages.

Laennec was born in Lower Brittany in 1781. He was five years old when his mother died of tuberculosis, a significant fact as he himself struggled against the disease and finally died of it at the early age of forty five. The present year is the hundredth anniversary of Laennec's death.

He may be called the founder of our knowledge of tuberculosis, as a separate disease. Before his time it had for the most part been considered a "degeneration."

VILLEMIN'S EXHAUSTIVE STUDIES

Villemin, in 1867, published his "Studies on Tuberculosis, Rational and Experimental Proofs of its Specific Nature and its Inoculability." This book was the most exhaustive treatise on the subject up to this time. The author placed the infective nature of the disease on a solid experimental basis. By careful conceived and conducted experiments on animals, he showed that tuberculosis was an infective disease, due to a specific virus of a parasitic nature, which was introduced from without. He showed that the virus was capable of multiplying indefinitely in the bodies of animals, and of being handed on from one animal to another by inoculation. He also demonstrated by experiments on animals the causal unity of the numerous manifestations of tuberculosis, such as phthisis, case-

ous pneumonia, scrofula and lupus and joint disease."*

Indebtedness should be acknowledged also to Rudolph Virchow (1821-1902) the founder of cellular pathology whose studies included the tubercle. His chief contribution consisted in describing the exact nature of tuberculous matter though he failed to see that tuberculosis, lupus, and scrofula were different manifestations of the same disease process.

KOCH DISCOVERED THE GERM IN 1882

It remained for Robert Koch to make the greatest contribution to our knowledge of the white plague. In 1881 Koch showed members of the International Medical Congress at London the tubercle bacillus, the actual causative factor of the disease. His first published account of the great discovery was March 24, 1882. I quote the following significant sentences: "Henceforth in our warfare against this fearful scourge of our race, we have to reckon not with a nameless something, but with a definite inmate of the body; its conditions of existence are for the most part already known, and can be further studied Before all things we must shut off the sources whence the infective material comes, so far as it lies in the power of man to do this."

Next to actual sight of the tubercle bacillus the greatest recent contribution to diagnostic methods of studying diseases of the chest is the X-ray. The costal grill with its contrasting contents of heart and lungs lends itself admirably to roentgenographic inspection, bringing slight variations in density into relief.

Since the discovery of tubercle bacillus intelligent efforts have been directed mainly toward curtailing its ravages. Tuberculosis has numbered among its victims not only scientists of Laennec's type, but also poets and authors, such as Keats, Stevenson, Thoreau and Henley, who were cut off in their early manhood to the great loss of mankind.

PNEUMONIA AND INFLUENZA

Pneumonia is one of the oldest of respiratory diseases to be recognized as a clinical entity. It was known to Hippocrates who sometimes confounded it with pleurisy. Osler quotes a remarkable description of the disease by Aretaeus: "Ruddy in countenance, but especially the cheeks, the white of the eyes very bright and fatty; the point of nose flat; the veins in the temples and neck distended; loss of appetite; pulse at first, large empty, very frequent as if forcibly accelerated; heat indeed, externally feeble and more humid than natural but internally very dry and hot, by means of which the breath is not; there is thirst ,dryness of the tongue, desire for cold air, aberration of the mind; cough mostly dry, but if anything be brought up it is frothy phlegm, slightly tinged with bile or with a very florid tinge of blood. The blood stained is of all others the worst."

Nothing especially noteworthy was added to our knowledge of pneumonia during the dark ages. The next more important contribution was the work of Laennec made possible by his new diagnostic device—the stethoscope. Laennec's very skilful use of this new diagnostic aid lead to a refinement of diagnosis so that exact localization of the pathology was possible.

Influenza was evidently epidemic during the dark ages as well as during the nineteenth and twentieth centuries. A condition known as the "sweating sickness" formed the connecting link between mediaeval and modern influenza. We read about "sweating sickness" for the first time in England in the year 1485 when the disease was characterized by a high mortality. We find outbreaks recorded in 1529 and 1551. It is possible that this disease fell on virgin soil which accounted for the great fatality, for it is less a matter of record during succeeding generations. The clinical descriptions of the "sweating sickness" that have come down to us would apply fairly to influenza as we know it. One writer described it "as an evil and unheard of cough which affected everyone far and near and cut off many." The term "la grippe" was first used early in the eighteenth century. In the eighteenth century outbreaks, in addition to fever and sweats, reference has been made to persistent rheumatic pains. The first epidemic of the nineteenth century was in 1803. In the United States the New England settlements were visited by influenza epidemics in 1660. In 1747 the influenza raged all over North America. This epidemic was described by a physician at the time as beginning "with a severe pain in the head and limbs, a sensation of coldness, shivering succeeded by great heat, running at the nose and a troublesome cough. It continued for eight or ten days and generally terminated in sweating." And again references are made to "great prostration of strength, a labor of breathing, pains about the breast, precardia and in the limbs." It was epidemic again in 1781, all over the United States.

*Extract from evidence before the Royal Commission on Vivisection by Martin of the Lister Institute (1907).

Coming to the nineteenth century 1889-90 a great epidemic spread rapidly over the world along the lines of travel. It girdled the globe in an incredibly short time.

The greatest pandemic of influenza in the history of the world occurred in 1918. The loss of life during this epidemic was as everyone knows, appalling. The total loss of lives directly and indirectly traceable to it will never be known. In the United States alone the deaths from this epidemic approximated nearly 600,000 or five times the number of American soldiers who lost their lives from all causes during the world war. It is inconceivable what the mortality would have been under conditions as they existed one hundred years ago with the unhygienic conditions which prevailed during that time.

DIPHTHERIA

The history of our knowledge of diphtheria falls into four periods. The first is the era of clinical observation; second covered the period of pathological and anatomical approach whereby knowledge became more exact through the refinement of technic accompanying the development of the microscope. The third stage might be called experimental and etiological when attempts were made to produce the disease experimentally in animals. The virus of diphtheria was first recognized by Loeffler in 1884. In 1890 Behring and Kitasato devised diphtheria antitoxin which initiated the fourth and last period of our knowledge which may also include the use of toxin-antitoxin as an immunizing agent.

The period of clinical observation began in the times of Aretaeus or perhaps, better, in that covered in the Hippocratic writings, and lasted until the third decade of the nineteenth century. In classical literature are many references to sore throats, distinguished by such names as quinsy, angina, cynanche, the last terms inspired by the cyanosis accompanying laryngeal diphtheria. Aretaeus, the Cappadocian, who lived during the second century, A. D., wrote on ulcerations about the tonsils: "Ulcers occur on the tonsils; some indeed of an ordinary nature, mild and innocuous; but others of an unusual kind, pestilential and fatal. * * * Such as are broad, hollow, foul and covered with a white livid or black concretion, are pestilential." He goes on to describe the laryngeal type of Egyptian and Syrian ulcer in which the disease spreads to the thorax by way of the windpipe and occasions death by suffocation in the space of a day.

During the dark ages the records are scanty and incomplete though epidemics of sore throat have been reported.

In the period of 1583 to 1666 we come across a disease that appeared as an epidemic in Spain, to which were given the names morbus suffocation or garrotilla, (strangulation). Spanish writers of this time have described the disease very completely, leaving little doubt but that the scourge was what later came to be known as diphtheria. The fetid odor and the membrane (crusta) are noted in their clinical descriptions. Some compared the membrane to "wet leather," or "wet parchment."

The disease spread from Spain to Italy in 1618 where its ravages proved deadly. After this time only sporadic cases were reported though it appears never to have been entirely absent.

The first account we have of diphtheria in the United States is that of an epidemic that ravages New England in 1659, referred to as "cynanche trachealis." At the cessation of this scourge in 1662 a day of Thanksgiving was ordered by the Connecticut legislature.

The next epidemic of sore throat, (the victims of which were mainly children) in New England was reported in 1735-6. Bard (1771) named the disease angina suffocativa and described it as "uncommon and very dangerous." This writer who was professor in Kings College (Columbia) drew the clinical picture with which every physician is more or less familiar. Other epidemics were reported among the colonies in 1742, 1755 and 1775.

Francis Home of Edinburgh wrote a small work entitled an Inquiry into the nature, cause and cure of Croup (1765), in which he succeeded in befogging the subject of throat distemper for almost a century. He regarded it as a rare disease about which little was known.

One of the most important names in connection with the development of our knowledge of this disease is that of Bretonneau (1778-1862) of Tours, France. In Bretonneau's work it is generally conceded that we have a medical classic of the first rank, to which from a purely clinical viewpoint very little has been added. From the post mortem study of a large number of cases he formulated his doctrine of "diphtherite" as a specific disease. The concept of "croup" announced by Home was swept away. Bretonneau performed the first successful tracheotomy in June, 1825. He was the first to use the word "diphtherite." The word as we have it, "diphtheria" was suggested by Farr in England in 1858. Diphtheria comes from the Greek word "diplithera," meaning

"leather." The word refers particularly to the membrane.

Bretonneau regarded diphtheria as the result of a special virus and also recognized its contagious nature.

The era of the "cell" was ushered in by Schleiden and Schwan. Their work made possible the great superstructure of cellular pathology by Virchow, who described a diphtheritic type of membrane in which the exudate consisted of coagulated fibrin lying in the superficial layers of mucous membrane itself, and between its cell elements.

The experimental stage consisted in attempts to produce diphtheria in various ways. Irritant substances such as acids, in vapor form, and of ammonia, caustic potash and other agents were introduced into the throats of dogs, rabbits and guinea pigs. Typical false membranes were, of course formed. It was in 1869, however, that Trendelenburg published the first successful results from the innoculation of diphtheritic material. Following this a number of cases of accidental innoculation, in which doctors had been infected during the performance of tracheotomy, were noted. Fourteen such cases had been recorded up to 1884.

KLEBS AND LOEFFLER DISCOVTR GERM

In 1875, Klebs discovered the germs of diphtheria and seven years later Loeffler obtained them in pure culture; hence the name, Klebs-Loeffler bacillus. In 1888 Roux demonstrated that the diphtheritic toxin could be filtered, thereby separating out the germs and that toxin would produce in animals the effects of the disease itself. In 1890, Behring and Kitasato discovered that animals might be immunized against diphtheria by graduated doses of the toxin.

The discovery of antitoxin by Behring is probably the greatest ever made in medicine. It was the result of constructive effort to rid mankind of this great scourge. The first child to be treated by antitoxin was a patient in a Berlin clinic on Christmas night, 1891. It was not, however, until 1894 that antitoxin came into general use. Roux and Martin were the first to employ horses for the preparation of antitoxin and consequently gave it a wide range of application.

Trousseau, the father of modern tracheotomy popularized the operation and devised the tracheotomy tube. This operation, however, fell into disuse in 1880 when O'Dwyer began his studies on intubation. resulting in the invention of the intubation tube. The next landmark in the conquest of the disease was Schick's test in 1913, the purpose of which was to ascertain the susceptibility to diphtheria. Theobold Smith in 1907 suggested the possibility of immunizing human beings to the disease, a feat safely accomplished by von Behring in 1913. The work of von Behring was corroborated by Park and Zingher of Buffalo and New York respectively, who used a mixture of diphtheria toxin and antitoxin. This work was performed in 1914-15. Since that time the use of toxin-antitoxin for immunization against diphtheria has become well known and general. A method is being developed at the University of Minnesota whereby children may be immunized against diphtheria and scarlet fever without being sensitized to serum.

SYPHILIS

Very few diseases there are to which whole books are devoted and perhaps syphilis is the only disease which has a specialist of its own—syphilologist. The name "syphlis" was first introduced into medical literature by Fracastoro of Verona who published in 1530 a Latin poem bearing the title "Syphilis sive morbus gallicus." From syn with or together and philos, love. While the direct mortality from syphilis is comparatively low, the morbidity from its protean manifestations is very high. Probably no other disease is so important in an economic sense. Not only does it impair the efficiency of all labor, but it reduces more persons to a state of dependency than any other ailment. Estimates in terms of monetary loss have been made but anyone will readily see that such calculations are futile.

I have already mentioned the incidence of syphilis among the pre-Columbian Indians, the mound builders, as described by Means. The disease appears to have been unknown in Europe prior to the return of Columbus' sailors in 1494. In this year it made its first appearance in Italy, having been introduced from Haiti, West Indies. It spread from Italy to Holland and to Greece in 1496; to the British Isles 1497 and to Russia in 1499. From Europe it was carried to the Orient, reaching Japan in 1569.

Other writers hold the disease to be of great antiquity, that it existed as far back as the stone age. They claim that it was also prevalent in China, twenty-six centuries before the Christian era. Opinion is divided in regard to whether syphilis was prevalent among the Jews of the Mosaic period. The principal evidence affirming consists in certain interpretation of Bible texts; some deny the earlier presence of syphilis since no evidence of the disease involving boney structures has survived. Hippocrates in the third book of Epidemics describes a disease which some take to have been syph-

ilis. Before the period ushered in by the discovery of America, however, the records are more or less shadowy; since that time the evidence is fairly definite.

Dr. James Inches, of Detroit, told the writer that during his itinerary through Africa, in Uganda, syphilis had become such a problem that the British government had undertaken to finance the treatment of two and a half million natives, 95 per cent of whom are said to have been infected through contact with Arab slave traders. The still-births were so numerous that the population is likely to become extinct. In as much as native labor is essential for working the resources of Uganda, clinics have been established, at which pregnant native women are treated and cared for until they give birth to full term children.

Syphilitic lesions were described by John de Vigo about the beginning of the sixteenth century; John Hunter (1728-1793) gave a very clear description of the chancre—the primary lesion. He, however, made the mistake of asserting that gonorrhea, syphilis and chancroid were different manifestations of the same disease and that they had a common cause. Hunter was the first to study syphilis experimentally, having inoculated himself with it in 1767, then studying it in his own person. Ricord was the next great authority on veneral diseases. Born in 1799, he lived to be ninety years old. He was the first to recognize the three classical stages of syphilis. He also popularized the use of potasium iodide in the treatment of the later stages. Thom quotes Oliver Wendell Holmes' description of Ricord; "The Voltaire of pelvic literature—A skeptic as to the morality of the race in general, who would have submitted Diana to treatment with his mineral specifics, and ordered a course of blue pills for the Vestal virgins."

Of course we have again to pay homage to Virchow who was the first to recognize the periods of latency as well as the recrudescence the disease. Schaudinn and Hoffmann discovered the treponema pallidium in 1905. The Wassermann test as a diagnostic agent was demonstrated in 1907. Ehrlich produced his "606" or Salvarsan in 1910. Since the discovery of the bacterium and Ehrlich's method of treatment with later refinements of the method, the disease is yielding to the constructive advances of scientific medicine.

THE CONQUEST OF SMALLPOX

The earliest account of smallpox was written in 922 by Rhazes the Arabian physician, though the disease existed much earlier than this time. It is said to have been known in China as early as 1200 B.C. It has prevailed in Europe since the sixth century. Since the thirteenth century the disease has been epidemic in various countries. All efforts to check its ravages availed but very little until in 1798 Jenner introduced vaccination. The method of prevention of smallpox that prevailed up to Jenner's time was that of "inoculation," the effects of which were often as bad as the disease itself. The procedure consisted in producing in the person an artificial attack of smallpox, and seeing the patient safely through the infection. Several doctors became noted for their skill in inoculation and the operation became a sort of specialty with them. The operation of inoculation was attended by risks through the danger of introducing other infective agents into the system. The only advantage of this old method of prevention consisted in the fact that the patient could select the time and place when he wished to have smallpox, but there was no guarantee that the induced disease might prove less dangerous than that accidentally acquired. Many, however, placed faith in the method for Benjamin Franklin wrote in 1788: "In 1736, I lost one of my sons, a fine boy of four years by the smallpox taken in the common way. I long regretted bitterly, and still regret that I had not given it to him by inoculation.

Inoculation was superseded by vaccination. Jenner was consulted by a young woman who had come to seek his advice. Smallpox was being discussed when she told Jenner that she could not take it as she had already been infected with cow-pox. This impressed Jenner so that he set to discover a method to prevent smallpox. Some time later he examined the tradition that prevailed among the country folk to the affect that milk maids who had had cow-pox were immune to variola. In 1789 he inoculated his eldest son with the virus of swinepox. Some time after the period of reaction, the boy was inoculated with the virus of smallpox, without the slightest inflammation being manifest. In 1796 matter was taken from the hand of a milk maid who had been infected by her master's cows and inserted by two incisions in the arm of a healthy eight year old boy. The usual course of vaccination followed but it yet remained to prove that the boy was immune to smallpox. A few months later, matter taken from a pustule was inserted by several incisions in the arm but no disease followed. Shortly after this Jenner wrote to a friend: "You will be gratified in hearing that I have at length accomplished what I have been so long waiting for, viz., the passing of the vac-

cine virus (the virus of Cow-pox) from one human being to another by the ordinary mode of inoculation. I was astonished at the close resemblance of the pustules, in some of their stages, to the variolous pustules. But now listen to the most delightful part of my story. The boy has since been inoculated for the smallpox, which as I ventured to predict, produced no effect. I shall now pursue my experiments with redoubled ardor."

Jenner did not, however, rush into print. He endeavored to confirm his discovery by further experimentation and it was not until two years later that he published his findings in a paper of about seventy pages entitled "An Enquiry Into the Causes and Effects of Variolae Vaccine."

The medical profession were divided in their acceptance of Jenner's discovery. Many influential physicians of London recognized it but others opposed it owing to mixed infection that frequently accomplished the procedure. Parliament, however, recognized his discovery by presenting him with 10,000 pounds.

It is impossible for the present generation to appreciate the enormity of smallpox in the pre-vaccination period. Compulsory vaccination, for the first time in England in 1851, produced a condition after which there was only one widespread epidemic, that of 1871-2, when the disease overran both Europe and America in the subsequent half century. Before the time of compulsory vaccination, epidemics recurred from three to five years. Today smallpox is one of the least feared of infectious diseases, owing to the fact that it is capable of being placed under complete control.

Until the seventeenth century measles and smallpox were not clearly differentiated. Measles was considered a mild form of smallpox. Rhazes wrote on the smallpox and measles as if they were intimately related. Sydenham was the first to describe measles as a separate disease. Like smallpox it has had its periods of great virulency. No specific micro-organisms have been discovered nor any method of prevention except isolation and rather loose quarantine.

TULAREMIA

There is a disease which, from its very newness, is deserving of a brief space in our historical study, namely tularemia. This disease was first recognized by McCoy as causing great havoc among the ground squirrels of California. McCoy and Chapman discovered the infecting micro-organisms and called it bacterium tularense from the name of the county Tulare, California in which the disease was first recognized. The disease runs the course of a plague among rodents, particularly rabbits and squirrels. It was named tularemia in 1921 by Francis of the United States Public Health Service, who investigated numerous cases in Utah. The pathology partakes of the nature of a bacteremia. Two types of tularemia have been described, namely a typhoid and glandular, the later consisting of an enlargement of the lymphatic glands nearest to the focus of infection. The infection is transmitted from rodents to man by a blood sucking fly which, having bitten a sick rabbit, proceeds to inoculate man. Hunters and cooks who handle and dress rabbits are apt to become infected directly. So far as recorded tularemia is particularly an American disease incident to the western states.

THE GROWTH OF PREVENTIVE MEDICINE

The history of many diseases is closely associated with the development of sanitation. Dr. Mitchell Bruce, in his Harveian oration, 1913, described a condition that prevailed in England during the latter part of the seventeenth, the eighteenth and early nineteenth centuries, during which period fevers flourished in the civil population. "General poverty and ignorance and hand-to-mouth existence, breaking down when famine happened to prevail, led to overcrowding into tenements in towns where men, women and children lived wretched and dissolute lives, without the smallest provision for a supply of wholesome water, or the removal of dejecta, effuvia, and dirt of other kinds. Ventilation was at a premium, for the window tax had fallen on habitation, and also on gaols and prisons maintained and worked on a corrupt proprietary system, and crowded with debtors and criminals alike." The situation which prevailed in England was to be found in other European countries. The coarse joviality and vice of the times formed themes for such writers as Fielding, Smollett and Dickens. England was the first country, however, to become alive to the significance of these physical and social evils. The awakening must be credited to the far-sightedness of physicians of the time. They condemned the shutting up in infected houses, the well with the sick until all had either died or recovered. Mead in 1720, had recommended the establishment of a council of health, to isolate infected persons and to remove those in good health to fresh quarters. He advocated the destruction of infected houses in case of plague and the burning of their contents. John Howard, whose name is associated with prison reform, bent his efforts to rendering the jails of England more sanitary in the way of improved ventilation. It was early discovered that it was not only necessary to educate physicians, but the people at large had to be educated also to the extent of intelligent co-operation. Great Britain was the first country to place

practical sanitation on a scientific basis, with the result that typhus fever was wiped out in less than a quarter of a century of hard work. The severity of this scourge may be estimated when it is understood that one-fifth of all the doctors of Ireland died of it during an epidemic in the early 40s of the last century. The flea, louse, bedbug, house flies and mosquitoes have all been recognized as transmitters of disease.

Malaria has a very long history. Some writers believe that the downfall of ancient Greece was due largely to this disease. The beginning of the conquest of malaria was the result of the work of Patrick Manson in 1879, who associated the disease with mosquito. Theobald Smith in 1889 demonstrated the wide spread of infection through insects. In 1880 a young French army surgeon, Laveran, working in Algiers with his microscope, found in the red blood corpuscles little bodies of an ameboid character which he believed to be the germs of the disease. Laveran was somewhat ahead of his time, for it was not until several years later that the protozoan parasite discovered by him was generally recognized by medical workers. Ronald Ross, working in India, found that the disease was transmitted by mosquitoes. Malaria throughout its long history has been one of the most thoroughly studied of all diseases. It is now confined largely to the tropics.

The conquest of yellow fever also represents one of the greatest triumphs of scientific medicine. In the West Indias and in the southern states, mortality from this disease has been as high as one in ten. The success of the scientific work on malaria gave the cue that yellow fever might be also an insect borne disease. In the year 1900, during the occupation of Cuba by the United States, a commission was appointed to undertake fresh investigation of the unsanitary conditions of Havana. The names of the members of this commission are well known to the medical profession. Dr. Walter Reed of the Army Medical School was placed in charge. His associates were Doctors Carroll, Agramonte of Havana, and Jesse Lazear. The story of the conquest of this dreadful scourge is one of greater heroism than the more spectacular perils of war. The commission proved that yellow fever was transmitted by the mosquito. Lazear permitted himself to be bitten by one and died twelve days later. He lived long enough to show that yellow fever was the result of an infection conveyed by mosquitoes.

The beginning of quarantine in United States was occasioned by yellow fever. The first recorded case in what is now the United States was in 1647 when the disease was known as Barbadoes distemper. Quarantine was raised two years later with the disappearance of the disease. In 1665, on October 11th, the general court of Massachusetts ordered all ships coming from England to be quarantined owing to the great plague of London. Defoes "Journal of the Plague" was writen many years after the plague, but it has such an air of versimilitude that many people have been deceived into thinging that it must be the account of an eye witness.

The sanitation of Havana was placed in charge of Dr. Gorgas and within nine months the city was freed of yellow fever, and following this time the West Indies were entirely freed from the scourge. It is a matter of common knowledge that these two great victories of scientific medicine, namely over malaria and yellow fever, made the completion of the Panama Canal possible. Doctor, afterwards Colonel Gorgas, was placed in charge of the sanitation of the Canal Zone. Yellow fever has been so completely eradicated that it has never returned.

Typhoid fever is an old disease, but it was not until the year 1813 that Brettonneau distinguished as a separate disease entity what had later become known as typhoid fever. It was considered for a long time to be a form of typhus in which the intestinal lesion was only accidental in the course of the malady. Gerhard, an American physician, was the first to show the difference between the two diseases, typhus and typhoid, in a paper prepared in the year 1837. The difference between typhus and typhoid, however, was not generally recognized until the year 1850. Louis of Paris was the first to use the name "typhoid." Osler speaks of the prevalence of typhoid as an index of sanitary intelligence of a community. From an infected person the mode of transmission consists of the three "f's", the fingers, food and flies. The bacillus, the causative factor of typhoid, was discovered by Eberth, from whom it derives its name. During the Spanish-American war and other wars typhoid reaped a greater toll of lives than did actual warfare. During the Great War typhoid was a comparatively negligible factor. Yet, while the disease is controllable, the yearly average of deaths from typhoid in the United States is ten thousand.

No attempt has been made to treat the subject of disease in any exhaustive way. It could not be accomplished in the scope of a paper like this. Osler in his work on "Practice," describes over one hundred diseases and cognate conditions. Enough of the story has been told, it is hoped, to show that the conquest of disease and the growth of population have been coincident with the development of science in general and scientific medicine in particular. The victory has been largely over infectious diseases caused by parasitic life, bacteria and protozoa. The weapons have been sanitation, serum treatment and vaccines, infection prevention and prophylactic surgery in such in-

stances as the removal of tonsils and adenoids.

Probably nothing testifies so unmistakably to the progress of scientific medicine as the growth of world population during the past century and a quarter. At the beginning of the nineteenth century the population of the world was estimated to have been 800 millions. The present estimate places it as over 1,600 million. In other words, the population of the world has doubled within the past hundred and twenty-five years. The population of England and Wales at the time of the revolution, 1688, was not more than five and a half millions. From the Norman Conquest to the beginning of the sixteenth century population had grown from only two to four millions. The growth was of necessity slow owing largely to disease. The population has more than tripled during the nineteenth century. Before the dawn of modern medicine infant mortality was frightful. The birth rate was 36 per 1,000 during the late middle ages and the death rate 24 per 1,000 of population. Life expectation, as estimated by a Frenchman in the early part of the eighteenth century, was placed at 26 years. Medical authorities estimate that during the middle ages it was as low as 21. With the achievements of modern medicine, life expectation in the United States at the present time is 55 years. Nor does this tell the whole story. It was not until 1847 that chloroform was discovered by Sir James Simpson. Before the use of anesthetics there was nothing to mitigate the pains of child labor or those incident to surgical operations. Hospitals were hot houses of infection and to be a patient in one was almost to court death. Not only has there been prolongation of life as compared with former times, but the comforts of living have become more abundant. The humblest citizen can, at low cost, indulge in what was not available for kings in former times at any price.

True, medicine, in which I include surgery, which is but a method of treatment, has done little for cancer, especially in the later stages. Malignant growths are as old as living beings. They are recorded in pre-historic remains. Surgery and the X-rays and radium have contributed towards the eradication in the early stages, but malignancy is still a vexed problem for the medical profession. During the middle ages and even into the early decades of the nineteenth century, death reaped a heavy toll owing to the general ignorance that prevailed. The historic plagues of mediaeval and ancient times were catastrophic in their range and virulence. It would seem at times that the people might be wiped out, or as Tennyson has it:

> "Are God and nature then at strife,
> That nature leads such evil dreams,
> So careful of the type she seems
> So careless of the single life."

With the growth of medicine in the conquest of disease there has also developed a social conscience. Probably never before in the history of the world has the altruistic spirit prevailed to the extent it does today. Men are more and more recognizing the fact that they are their brothers' keepers. We see this in organized charities—in municipal hospitals—in the free clinics, which are often abused.

It has been said that the future of mankind will concern the group rather than the individual. It will be social evolution rather than the further evolution of the individual. In this no class or profession will figure to a greater degree than the medical profession. The success of preventive medicine as well as the growth of medicine and surgery in the past will warrant a continuance on the same lines rather than the inauguration of the paternalism of state medicine so-called.

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A GOITRE RESUME*

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For many years, goitre has been recognized as a tumor of the neck affecting man and animals, but only recently has its reaching effects on the cardio-vascular, renal and nervous systems been appreciated. Its distribution is world-wide and no age is exempt.

The following types of non-malignant goitre are recognized: (a) colloid, (b) adenoma, (c) exophthalmic, (d) foetal adenoma, (e) mixed.

The colloid goitre of adolescence causes a tumor of the thyroid, a general apathy and a low basal metabolism rate (usual a minus 10 to minus 15). This type is usually treated by the use of iodine in some form. Dissicated thyroid or thyroxin is given until the basal metabolism changes from a minus to a plus 6 or 7.

The adenomatous goitre causes a tumor,

*Jackson County Medical Society, April 13, 1926.

some cardiovascular symptoms such as tachyardia, and arrhythmia and nervous phenama which will be discussed later. If goitre is active these patients have an increased basal metabolism rate.

The exophthalmic goitre causes certain well defined early symptoms among which are: (1) eye phenomona, exophthalmos and stare, (2) nervous and emotional states—irritability, (3) muscular symptoms—continually in motion, fine tremors, muscular weakness, (4) gastro intestinal symptoms—vomiting, diarrhea, (5) later, we find cardiovascular, renal and liver changes which will be mentioned in more detail, (6) the basal metabolism rate is greatly increased. Crile urges the removal of all goitres of the foetal adenomatous type because 12 per cent undergo malignant change.

Tachycardia without question is the outstanding symptom of thyroid disease. When a patient presents himself to us and we find a persistent tachycardia, thyroid disease is considered first as the possible cause of this medical problem. Tachycardia must not be considered as an evidence of myocardial disease. In thyroid disease we have an increased basal metabolism as a physiological fact, we must consider this increase of pulse rate at first as a physiological fact rather than a pathological entity. The result of a long continued tachycardia on the heart is that it becomes a "weak muscle."

If we are to accept the statement that a prolonged tachycardia produces a weakened cardiac muscle, we believe that this explains why the heart is affected more constantly in thyroid discussion than any other organ in the body. No doubt this is due to the mechanical strain of an over worked muscle and the direct toxic effect of the substance which poisons the heart muscle. The average pulse rate of our hyperthyroidism patients is 118. The over activity is commensurate with the degree of intoxication. Not only is the pulse rate increased, but the blood pressure is elevated even when we find nothing more than a persistent tachycardia.

After prolonged thyroid intoxication, the arrhythmias develop. The most important and most constant is auricular fibrillation. The long period of tachycardia causes fatigue and hyperthrophy. In the susceptible hearts there is degeneration as manifested by the clinical findings of dilitation, hypertrophy and arrhythmia rather than the intensity of intoxication which causes such a damage.

A few years ago the goitre surgeon chose his operative cases with great care. With improved medical preparation of the patient, operation is now safely offered to a greatly increased number of patients who otherwise would be doomed to early death. Today less than 1 per cent are considered inoperable (malignancy included). During the past two years we have not refused operation to any patient. Some required careful medical preparation and considerable postoperative attention. There has been no mortality during this period.

Persistent auricular fibrillation is the most common cause of thyroid death. It occured in 25 per cent of our cases.

Arrhythmias other than fibrillation occur but they are rare. Premature contractions: paroxysmal tachycardia, delayed conditions, heart black may be mentioned.

TREATMENT

While there has been developed a standardized treatment of active goitre there is yet a wide spread difference of opinion between experience clinicians as to the value of certain forms of therapy. For instance, in the matter of radiation (X-ray and radium). We recently wrote to five of the largest goitre clinics in America to get their present opinion on radiation with the following replies:

"We do not use the X-ray or radium because we feel that the percentage of recurrence, incomplete cures and complete failures, together with the possibility of severe thyroidism occurring during the treatment, contra-indicates it. We employ surgery because we believe it relieves thyroidism most completely, most certainly and most quickly.

"We feel that radio-therapy in certain cases either mild or severe definitely dose produce improvement."

"We have failed to see any material benefit from the use of X-ray or radium in the treatment of hyperthyroidism and we are not sure at all that any benefit is received from its use in even mild cases.' They use some X-ray.

"We, ourselves are unable to give a definite opinion as to the value of X-ray treatment in our own hands. In our own experience, we are not able to answer the question about radium therapy in mild cases." They use some X-ray.

"We are having returns on quite a number of cases treated with X-ray who now have recurence of the hyperthyroidism. In addition, there is a certain percentage of

cases who apparently do not respond to radiation.

"In milder cases, I do believe radiotherapy has its place combining it, of course, with the other therapeutic means ordinarily employed in the treatment of these cases, particularly rest, elimination of the foci of infection, etc."

"We use X-ray in early diffuse colloid goitre where no adenoma can be discovered."

Surgery is recommended on an average to only about one goitre patient out of three that we see (in adults). Only rarely should surgery be recommended before twenty years of age.

Malignant goitre will not be gone into.

X-ray treatments to do any good should be given in fairly good doses and repeated every two weeks, usually from three to six treatments. Radium may be substituted if patient cannot be moved to X-ray machine. The mode of application of the X-rays has certain mechanical advantages over radium.

The consensus of opinion seems to be that X-ray causes temporary benefit in most cases of mildly toxic goitre.

OPERATION

The palliative operations such as injections of hot water or quinine anr urea hydrochloride, ligations of superior or inferior thyroid arteries are done less often than formerly. The ligations are now used only in the exophthalmic types.

Most goitre surgeons today do the gland resection under local anesthesia, gas oxygen, ethelene oxygen, or a combination of the two.

In the last series of surgical goitres, during the past two years, 8,390 have been operated under local anesthesia. Each case made a good recovery. There are several advantages in local anesthesia. The shock is greatly diminished. One can tell whether the recurrent laryngeal nerves are encroached upon by asking the patient to cough before closing the wound. Fluids can be taken immediately.

Post-operative hemorrhage in goitre is a very embarrassing complication, so the coagulation time of the blood is now a routine procedure before operation.

As Dr. Plummer put it: "Surgery is the ideal treatment for toxic thyroid goitre, surgery is probably the best treatment; at least the patient likes it better."

It is our observation that the patient with a "goitre heart" is a better surgical risk than is popularly supposed. Patients with hyperthyroidism and bad hearts should not be refused surgical relief. As a comparison, the patient with cholecystitis and a heart as bad as a patient having hyperthyroidism is a very dangerous risk to undergo cholecystectomy or cholecystostomy where as the hyperthyroid cardiopath has a much better prognosis. We regard any prolonged postponement of surgical intervention unfair to the patient. For that matter any prolonged postponement of surgical intervention in any thyrotoxic case is likely to result in permanent myocardial degeneration. The surgical intervention is only one step in the handling of hyperthyroid cases but it is a very important one. The patient must be guided before and after an operation. If the goitre is at all toxic, he must be supervised for a length of time varying from a few days to three or four months before he submits to surgery.

The feeding of exophthalmic goitre patients is an important phase of successful treatment. Since they have a markedly increased basal rate, they must have a liberal caloric diet having an excess of carbohydrates, and just enough protein to prevent a negative nitrogen balance and the diet should be poor in salt.

Eighty per cent of goitre patients are women. Since all patients are nervous and excitable, are irritated by trivial things, are sleepless and emotional, worry and tire easily, these patients do much better when placed in a hospital. Here the home life is shut out and the patient encouraged to rest. As a rule they are antagonistic to hospitalization for a day or two but soon realize they are resting better, that their heart is not beating so fast, etc., and they are willing to co-operate with the schedule proposed.

A general diet rich in carbohydrates and low in protein and salt is ordered. Three thousand c.c. of fluids are ordered daily, (no tea or coffee allowed). Bath room privileges are denied. Visitors are restricted to immediate members of the family and not more than two hours a day allowed them. Soda bicarbonate 10 grs. is given T.I.D. and triple bromides grs. xx or xxx at bed time for a few nights. In the non-toxic cases, operation may be done in two or three days, and the toxic case is held indefinitely under medical treatment until the basal rate is lowered and the symptoms abate. Lugols solution is generally used in all operative cases because of the difficulty in differentiating between diffuse adenomata (hyperplasia) and the hypertrophic or exophthalmic type. Digitalis is only used in auricular fibrillation, the ordinary taccycardia is usually influenced by it, ice bags have a favor-

able effect upon it. This is always discontinued a few days before the operation.

The first 48 hours after operation is the most critical period. It is during this period that the patient must take 3,000 to 4,000 c.c. fluids if they will tolerate them, if not the intravenous use of 5 to 10 per cent glucose without glucose intravenously or subpectorally should be used until the patient tolerates fluids by mouth. Morphia and other sedatives, as well as Lugols solution should be used. The patient as a rule has a stormy time if the surgery has been done under local anesthesia.

The average stay of the patient in the hospital after operation is approximately eight days. They are sent home with definite printed instructions which includes a simple diet, meat free diet, a large water intake, no social functions and a definite rest schedule. Household cares are kept at a minimum, and in the more severe cardiac cases, such activities as stair climbing may be prohibited for weeks.

THE ROLE OF CONSTIPATION IN COLON BACILLUS INFECTIONS OF THE URINARY TRACT

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It is generally conceded that the colon bacillus is the most common, as well as the most obstinate infection of the urinary tract. Cabot states that "the colon-bacillus has been at the bottom of the most persistent problems which the urologist has had to face. We cannot point with pride to our successes here though we may well view with alarm our striking inability to stamp out this infection once it has become firmly rooted." Lowsley considers the colon bacillus infection of the urinary tract as "the bugbear we have to face."

The preponderence of colon bacillus infection of the urinary tract has caused much speculation as to the source of B. Coli infections of the kidneys as well as the channels through which they enter the kidney. Both the urogenous and hematogenous routes have their advocates and much clinical work has been done to prove or disprove either. Inasmuch as this paper has to do with the relationship of colon disturbances and urinary infection of the latter route only will be considered.

David and McGills exhaustive clinical findings prove conclusively that the bowel can be the source of B. Coli infection of the kidneys. Of 11 dogs injected with B. Coli and fat via the stomach tube, 8 were found to have organisms in the mesenteric glands —6 of which were colon bacillus. They also found that in control dogs with normal intestines, the mesenteric glands contained bacteria in over 50 per cent and the B. Coli were found in 33 per cent of the cases examined. They came to the conclusion, after exhaustive experimental work, that "these facts speak conclusively for passage of organisms from normal bowels to the messenteric glands."

MacKenzie found that 80 to 90 per cent of persistent urinary infections, exclusive of tuberculosis, was due to infection by the colon bacillus. In a series of two hundred cases of pyelitis he found colon bacillus infection in 94.5 per cent of the cases.

Seventy-five per cent of Schapiro and Wittenberg's cases of renal infection were due to colon bacillus infection.

MacGowan thinks that colonic stasis is an important factor in causing colon bacillus infections of the urinary tract. He assumes that the B. Coli enter the kidney via the circulation or travel via the lymphatics from the bowel to the kidneys. He reports two cases of constipation; one of which was fecal impaction, which, when corrected showed a speedy regression of the pyelitis.

Heitz-Boyer believes that functional disturbances of the bowel, as constipation, are largely responsible for colon bacillus infection of the kidneys. He isolated the B.Coli organism from the blood stream in three cases which he thought was intestinal in origin, as he naively states the disease was healed by small doses of castor oil.

Cabot is of the opinion that "constipation and varying degrees of visceral ptosis are common and may well result in throwing colon bacilli into the circulation more commonly than we believe. It will, I think, well repay study in order to determine how frequently palpable abnormality of function of the large intestine is associated with bacillemia and bacilluria."

French believes that the colon bacillus reaches the kidney through the blood stream from the bowel during constipation.

Czerny and Moser contends that gastroenteritis is a disease of general infection in which the bacteria enter the blood stream, from the bowel, causing renal infection.

Hornemann thinks that in case of human beings the organisms get into the blood stream from the intestinal tract only or when lesions of the bowels are present.

MacKenzie says "a close relation between infectious diarrhea and colon pyelonephritis in infants is well recognized. Intestinal bacteria may be taken up by the lymphatics of blood vessels from ulcerations in the mucosa

and in the end reach the blood stream to be exerted py the kidneys, producing a pyelonephritis."

Jeffreys reports 121 cases of pyelitis of whom 34 had definite evidence of bowel disturbance. According to Kretschmer, Asch was able to produce bacteriurin in dogs by feeding them opium so the bowels were locked up from 7 to 10 days. Without any treatment other than opening the bowels the bacteria disappeared promptly. He also states that "lesions of the intestinal tract may be a predisposing factor in the production of renal infections by the colon bacillus—many of these patients have a history of colitis. Many cases occur in the children's hospitals during the summer time, when gastrointestinal disturbances are common in children. Some of our cases have had disturbances of the colon, and treat them as we would, we have been unable to make any progress until the colon conditions were corrected." Bohr found B. Coli in the blood in 115 cases of bowel disturbances. Herbst reported a bilateral B. Coli pyelitis in a woman suffering from colitis. Of the 80 cases of pyelitis in children reported by Friedenwald, 59 had bowel disturbances, whereas among the 68 cases of pyelitis in children and 92 per cent of the 40 cases of pyelitis reported by Kowitz showed a B. Coli infection associated with gastro-intestinal disturbance.

According to Schapiro and Wittenberg "Colon bacilli penetrates the health mucus membrane of the intestines after two days of constipation; and when the mucus membrane is diseased the passage of these germs into the blood is still easier." The exhaustive experimental work of David and McGill gives much valuable information on the relation of the bowels to B. Coli infection of the urinary tract. Experimental clinical observations have brought them to contend that "the significance of the passage of intestinal organisms through the normal, as well as pathological, bowel wall to the mesenteric glands cannot be overlooked—while it is undoubtedly true that these organisms reach the blood stream in but relatively small numbers and inconstantly, it is nevertheless possible that increased virulence of the organisms, lowered resistance of the host, as well as actual lesions of the bowel wall would greatly increase this number of organisms reaching the blood stream. The conclusion would accord with the clinical relations of gastro-intestinal lesions and urinary tract infection.

Of a series of 212 cases of pyelitis examined by us at the Battle Creek Sanitarium, 111 or 52 per cent were colon bacillus infection. Of these cases 66 were women and 45 were men. The infection was bilateral in 67 cases—66 per cent, whereas in men it occurred in 27 or 34 per cent of cases. In cases of unilateral renal involvement of the B. Coli infection there were 12 cases of right renal infection and 14 cases of left in women, compared with nine cases of the right and nine cases of the left kidney involvement in men.

Fecal examinations made in 50 cases of colon bacillus infection of the urinary tract, 16 of which were men and 34 women, showed a preponderance of the bacillus Coli group in all the tests—the average flora on entry was 29.6 per cent gram positive bacteria of which the bacillus Acidophilus more or less predominated the group, and 70.4 per cent gram negative bacteria, which were chiefly the colon bacillus group, whereas after an average of three weeks' treatment the flora was 40.2 per cent gram-negative and 59.9 per cent gram-positive bacteria. The average flora of 35 urological cases of colon bacillus pyelitis on entry was 22.3 per cent gram-positive and 77.7 per cent gram-negative for men and 72.9 per cent gram-negative bacteria and 22.3 per cent gram-positive for women. After an average of two and one-half weeks' treatment for men and three and one-half weeks' treatment for women the average flora was 49.4 per cent gram-negative and 56.6 per cent gram-positive bacteria for men and 44 per cent gram-negative and 56 per cent gram-positive bacteria for women. The minimum period of treatment was one week, whereas the maximum treatment was thirteen weeks.

In four of our cases the urine was positive for colon bacillus after three weeks treatment. In approximately 30 per cent of our cases of colon bacillus infections of the urinary tract the bladder findings were negative, whereas in 50 per cent of the cases the bladder findings were of variable degrees of cystitis or trigonitis leaving but 20 per cent with the more pronounced types of vesical pathology. The form of treatment used in 36 cases of B. Coli infection of the urinary tract associated with constipation was as follows:

No. of cases, 2; Type of treatment, low protein diet only; Actual duration of treatment when urinalysis was negative for B. Coli, 2½ weeks.

No. of cases, 8; Type of treatment, renal pelvic lavage with Ag. No. 3 plus non-toxic low protein diet; Actual duration of treatment when urinalysis was negative for B. Coli, 3 weeks.

No. of cases, 20; Type of treatment, low protein non-toxic diet—colon treatment—lactose dextrine and mineral oil; Actual duration of treatment when urinalysis was negative for B. Coli, 2¾ weeks.

No. of cases, 6; Type of treatment, low protein non-toxic diet—colon treatment—lactose dextrine—

mineral oil and pelvic lavage with Ag. No. 3, 2½ weeks.

From the preceding table it can be readily seen that the results in treating our colon bacillus infections of the urinary tract were obtained when suitable therapeutic measures were instituted to take care of colonic conditions as well as the uropoietic tract. We are convinced that the source of a large per cent of B. Coli infections of the urinary tract is intestinal, hence the treatment thereof is of a necessity a two-fold proposition, which must be considered in order to obtain the best results.

The following case is submitted as an average case that comes to us and upon examination was found to have a bilateral colon bacillus infection of the urinary tract:

Mrs. M., married, age 35, Canadian. She was referred for urological examination 5-30-23 and gave the following urological history. She had intermittent attacks of cystitis with urgency, frequency, and localized sharp pain in the bladder neck at the termination of urination. Seldom got up more than once a night to avoid urine. This condition grew gradually worse the past year, and recently has been more or less continuous. Has lost 5-6 pounds the past year. Appetite poor. States she "has a feeling of weakness in the small of the back occasionally."

The cystoscopic picture was that of a moderate trigonitis with numerous vesicula cystica disseminated over the trigone and bladder neck. Both ureteral ora was well defined and excepting from some congestion, were normal in appearance. No. 5 catheter were passed up both ureters about 6 inches when resistance prevented further progress. The segregated urine was free and equal and clear and colorless from both kidneys. In the PSP test the dye appeared from the right kidney in two minutes and in four minutes from the left with a percentage of 10 from the right and 11 from the left in 15 minutes collection with but a trace from the bladder. The plelogram of the right kidney showed a moderate dilation of the pelvis and the lower calyx.

Laboratory test showed many gram-negative bacteria, B. Coli Muccosus Capsulatus, and diphtheroid infections in both kidneys. T. B. microscopic and guinea pig test were negative. A diagnosis of bilateral pyelitis was made and pelvic lavage wits silver nitrate plus urotropin and acid sodium phosphate recommended.

Laboratory tests were as follows:

Urine quantity, 700 c.c.; sp. gr. 1.015; Reaction, 60 x; NH3 .295; Bergell, 0; Alb., Tr; Indican, 3; Indol Aac, x; Toxin test, plus; casts, 0; plus cells many; blood cells, 0; crystals, etc., 0.

Feces 6-1-23—B. Welchii, X; Odor putrid; Baca. B. Coli xxx; Micro. Flora, 15/85; Character, very bad.

Feces 6-20-23—B. Coli x; Odor, sour; Bact. B.; Acidophilus, x; Micro., 35/65; Character, mixed; Yeast, x.

Bacteriological examinations of tonsils 5-16-23, shows:

Non-hemolytic strept; Staph. aureus; pneumococci; gram-heg. bact. pus cells and debris.

Protological examination 5-12-23, showed considerable highly putrid feces present; several fairly large congested internal hemorrhoids, mucosa anemic. Bowel wall atonic and greatly relaxed. Colon treatment.

Treatment—Patient was put on general tonic hydropathic treatments together with colon treatments, consisting of colon massage, electrical treatment and culture consisting of B. Acidophilus, B. Bifidius and B. Lalticus. She was also given agar and mineral oil. Hexamethylene and alidi sodii phosphate as grs. V. after meals and at bedtime; also had the kidney pelves treated with Silver nitrate 1-1000 solution every four days. As noted in the urinalysis 5-15-23, there was every evidence of putrefaction in the colon. A subsequent urinalysis made 6-6-23, was negative for indican indol acetic acid and toxin test, whereas the fecal test when first made 1-1-23, showed a flora of 15 per cent gram-negative bacteria and 85 per cent gram-positive bacteria. In three weeks of treatment it was changed to 35 per cent gram-negative and 65 per cent gram-positive bacteria. The laboratory reported the segregated specimen obtained 6-18-23, as containing gram-negative bacteria from the right kidney whereas the left was negative. Another specimen obtained 6-24-23, showed the urine from both kidneys negative for bacteria. The patient went home 6-29-23, "wonderfully improved; gained six pounds, less nervous, bowels moving well, and everybody commented upon my improvement."

This case serves to illustrate one of a large per cent of cases of colon bacillus infections of the urinary tract that come under our observation which is apparently of intestinal origin. Most of these cases that were obstinate to direct kidney treatment alone by way of pelvic medication, via the ureteral catheter, even when supplemented by the use of urotropin, responded more readily when measures were instituted to change the intestinal flora. It is obvious that diet must be of primary consideration. We find the low protein, non-toxic laxative regime best suited for this purpose. Especially when augmentated by a suitable pabulum that favors the acid forming bacteria such as, the acidophilus which is primarily indiginous to the colon. Either milk sugar (Lactose) or dextrine given in large dose frequently is recognized as the best media for this purpose. We use a mixture of both lactose and dextrine, together with an extract of lemon for the vitamine content. Our experience has been that persistent colon bacillus infection of the urinary tract is unvariably associated with some form of intestinal disturbance and that in order to insure the best and most protracted cures in these cases, colon hygiene and the changing of the intestinal flora must be considered.

It is generally conceded that the course of a mild colon bacillus infection varies. It may disappear promptly or the disease may last for years without apparent inconvenience to the patient, as long as the patient's health and general vitality is good, however, there is always the danger of more severe in-

volvement of the kidneys once the resistance is lowered and the infection gets more virulent. Our experiences concur in MacFowan's observations "that these cases of colon bacillus infection of the kidneys and bladder persisting and unyielding to treatment are invariably due to colonic stasis of the fecal current," and that the only logical manner these obstinate cases can be successfully dealt with is, in addition to the urological treatment, through the institution of colonic hygienic measures; to change the flora from the putrefaction residuim harboring the colon bacillus to one of acid medium favoring the Acidophilus, and a dietetic regimen preventing the reoccurrence of said putrid state. A diet that can only be found in the vegitarian dietary.

CONCLUSIONS

1. A big per cent of all colon bacillus infections of the urinary tract have their source in some form of intestinal disturbance.
2. There is definite relationship between protracted constipation and associated B. Coli infections of the kidney and bladder.
3. In order to treat persistent colon bacillus infections of the urinary tract successfully, colonic conditions such as diarrhea and constipation must be first taken care of.
4. Colon hygiene is an essential in the treatment of persistent B. Coli infections of the urinary tract.
5. Changing the intestinal flora by means of lactose of dextrine materially augments the cure of Colon bacillus infections of the urinary tract.
6. The vegetarian regimen is best for preventing a putrefactive flora, and for maintaining the acid forming bacteria when once changed.

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THE SIGNIFICANCE OF BLOOD IN THE URINE*

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Reason for choice of topic—When the invitation to address this Section was received the writer conferred with your Secretary, Dr. Burr, as to the desirability of speaking on a subject which would not only be of interest to the general surgeon, but equally as much to the gynecologist, internist or even general practitioner who might attend your meeting. We reached the conclusion that no topic of borderline importance could compare with that of what the presence of blood in the urine means and why it calls for an immediate investigation as to its source.

With the exception of highly specialized branches, such as the eye, ear, nose and throat, the remainder of the profession comes in almost daily contact with hematuria either in microscopic or naked eye form.

Why is blood in the urine often considered unimportant?

How does it happen that we are consulted about a hematuria and postpone any further search for its source because it stops after giving some local or general treatment?

I shall attempt to tell you why. Many hematurias cease spontaneously as suddenly as they have appeared. They are seldom accompanied by symptoms which would be of aid in localization and the physician who is first consulted, not being equipped. like the urologist with special diagnostic resources, treats the patient medically and dismisses the significance of the blood in the urine from his mind. Both patient and physician are thus lulled into a false sense of security until the hematuria either recurs, becomes persistent or other symptoms appear which indicate that the golden time for treatment, e.g. of a bladder cancer has passed.

It is most unfortunate that so many hematurias appear unaccompanied by any localizing symptoms and even more sad that the majority of hematurias stop spontaneously as suddenly as they appeared.

These clinical characteristics are more to blame than any other factor for the still unsatisfactory end results in the treatment of many lesions of the urinary tract in both sexes and of the genital tract in the male.

It is timely therefore to urge you to re-

*Read at the May 25, 1926 meeting of the Surgical Section of the Wayne County Medical Society at Detroit, Michigan.

gard every hematuria, be it visible to the naked eye or only under the microscope, as a danger signal which calls for an immediate investigation as to its source.

SOURCES OF BLOOD IN THE URINE

It will be impossible in the time allotted to this paper to discuss in detail every possible pathological condition which may give rise to blood in the urine. I shall, however, attempt to show some of the principal lesions of the urinary tract in both sexes in a series of slides by means of which you will be able to visualize the many possible sources of hematuria which we are able to find by modern urologic study of a patient. In adition to those in the genito-urinary tract proper, there are a number of others which we must constantly bear in mind lest we commit the error of making an erroneous diagnosis of localizing the hematuria in the genito-urinary tract whereas in reality the underlying condition is one outside of these structures. We have been impressed during recent year with the importance of systemic diseases as a potential source of hematuria as well as certain viscera, especially the appendix, being the direct cause of this symptom, under pathological conditions. We may, therefore, group the possible sources of hematuria thus:

1. Systemic causes.
2. Appendicitis, vicarious menstruation, etc.
3. Conditions in the genito-urinary tract.

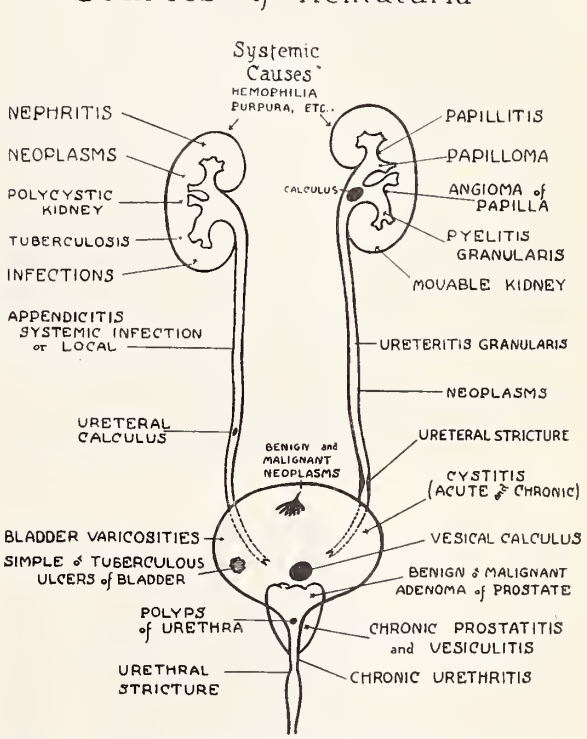
I will only enumerate those which are most commonly found and would suggest this division in searching for a cause in a given patient.

1. Systemic causes, (See foot note).
   (a) Hemophilia.
   (b) Erythemia (Polycythemia vera).
   (c) Purpura hemorrhagica.
   (d) Leukemia.
   (e) Scurvy.
   (f) Hodgkin's Disease and Lymphosarcoma.
   (g) Hematuria after high protein diet and exercise.
   (h) Hematuria in acute systemic infections.
2. Pathological conditions of adjacent viscera, (See foot note).
   (a) Appendiceal hematuria.
   (b) Vicarious menstruation.
3. Pathological conditions in genito-urinary tract proper. These will be enumerated in the sequence in which we look for them in our urologic study of a case.

(a) Urethral, (Fig. 1). Chronic anterior or posterior urethritis, urethral stricture polyps (especially in vicinity of verumontanum) varicosities or hemangiomata.

(b) Seminal vesicles and prostate, (Fig. 1). Chronic vesiculitis (bloody semen), chronic prostatitis (bloody secretion spontaneously evacuated into urine or found especially after massage. Malignancy of vesicles or of prostate. Carcinoma (primary or by extension) of urethra.

(c) Vesical, (Fig. 1). Polyps of internal urethral meatus, acute and chronic (more common) cystitis, benign adenoma and also carcinoma of the prostate, calculus (usually complicated by cystitis), simple or tuberculous ulcers, varicosities over prostate or



other portions of vesical mucosa, benign and malignant tumors arising either primarily from bladder wall or extending into the latter from inflammatory or malignant lesions of adjacent structures (rectum, internal and external genitalia of female).

(d) Ureterorenal*. Strictures of the ureter with resultant renal changes, ureteral calculi, neoplasms arising either primarily in the ureter (rare) or extending by implantation or contiguity from the kidney, or paraureteral structures (uterus, etc.), and finally ureteritis (primary or secondary to a descending renal or ascending visceral infection or to extension from some structure

Foot Note—For a more detailed discussion of the various sub-headings in groups 1 and 2, the reader is referred to my article on hematuria in Journal of American Medical Association, Vol. 86, page 825, March 20, 1926.

*It is advisable to group these together because the conditions in the urteter are so often secondary to those of the kidney and vice versa.

which may lie in close contact like the appendix). (Fig. 1).

Renal conditions, such as chronic nontubercular pyelonephritis (especially pyelitis granularis), neoplasms (papilloma or papillary carcinoma) arising from the renal pelvis, calculi in the pelvis proper or in the calyces, movable kidney, angiomata or varicosities in the papillae, congenital polycystic disease of the (usually of both) kidney parenchyma, renal tuberculosis (Fig. 1), benign and malignant neoplasms of the parenchyma and last, but not least, acute and chronic nephritis.

HOW TO FIND THE SOURCE OF THE HEMATURIA

At first glance it would appear to be an impossibility to eliminate one after the other of the many sources just enumerated. I will grant that at times it requires an immense amount of perseverance to do so. If, however, we approach the problem in a systematic manner, its apparent difficulties rapidly disappear. We follow a certain routine of which only the bare outline will be given.

1. A detailed clinical history paying especial attention to the following:

(a) Is there a history of familial bleeding or of excessive hemorrhage from slight wounds, unusual parts of the body, (breasts), of extensive subcutaneous ecchymosis after insignificant injuries. These give information as to hemophilia and other systemic causes of hematuria. It must not be forgotten that such a systemic cause can coexist with a local one, such as renal tuberculosis.

(b) How long has the hematuria existed? Did it appear spontaneously and without accompanying symptoms (symptomless hematuria)? Did it stop spontaneously and how long was the interval before it recurred, if this has taken place? If it has been continuous, what is the length of time it has been so?

(c) Relation of urinary findings to act of urination. Was the blood only found in microscopic amounts and accompanied, or not, by other elements such as albumen, casts, pus, etc. Was the blood visible first, or at any time, to the naked eye in the urine or escaping from the urethra? Does it precede, continue throughout, or only follow urination and is it accompanied by pain in the kidney, ureter, bladder or urethra. Does it follow exertion or coitus, etc?

It was formerly believed that if the blood was intimately mixed with the urine that the lesion was in the kidneys and if it seemed fresh and in clotted form, that its origin was in the bladder or urethra. With the advances in diagnosis made by modern urology we now know that these clinical appearances are of some value but not to be compared with the more exact methods of localization.

(d) The next information to be obtained is as to whether or not the hematuria preceded, accompanied or followed an attack of appendicitis. Blood in the urine is such a frequent concomitant finding in all stages of appendicitis that the special name of "appendiceal hematuria" is in common use. It can occur even when there is no intimate relation between the appendix and ureter due to a glomerular nephritis as the sequel of a systemic infection from the diseased appendix. This is in all probability a more frequent cause of the microscopic, or macroscopic presence of blood in the urine in such cases than is direct extension of the infection from the appendix to the ureter.

In addition to such contiguous structures as the appendix and internal genitalia of the female as possible sources of hematuria, we must not forget that it may occur as a form of vicarious menstruation.

In a series of 201 cases collected by Roth it was from the bladder in nine and from the kidney in two cases. Loenne[1] has recently reported a case in which a woman of twenty-six, shortly after the removal of a right sided ovarian cyst and bilateral hematosalpinx, began to have severe backache and hematuria for twenty-four to thirty-six hours every four weeks. He could see through the cystoscope a hyperemia of the bladder mucosa and also the escape of blood from one of the ureters.

UROLOGIC STUDY OF THE CASE

2. Although the value of a carefully taken clinical history is not to be underestimated, the essential step in every case of hematuria is a thorough examination of the genito-urinary tract in both cases. Since Locke and Minot have directed our attention to the importance of systemic causes of hematuria we have routinely asked an internist to examine the patient's cardiovascular system, blood, etc. in order to ascertain whether the cause of the hematuria is outside of the genito-urinary tract.

To describe all of the many steps of a complete urologic study is beyond the scope of this paper. Such an examination should include, in the order named, direct inspection of the urethral and vesical mucosa and ureteral catheterization, supplemented by functional tests, bacteriologic, chemical and microscopic examination of the urine from each kidney, plain radiography and ureteropyelography. Before we undertake the local

1. Zentralblatt fur Gynaekologie 49, 1129, 1925.

we always subject the patient to a complete physical examination of the abdomen, rectum and genitalia (external and internal) and have the blood chemistry determined as to percentages respectively of urea and creatinin.

In closing let me make a plea to regard every hematuria, be it microscopic or macroscopic, as a danger signal. It is our duty to the patient to have a thorough examination made along the lines just outlined in order to determine whether the condition is one requiring operative interference or not. Our percentage of unfavorable end results with bladder tumors, as only one of many instances. would not be as large if every case of hematuria, whether accompanied or not by other symptoms, were subjected at least to cystoscopic examination.

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

BEAUMONT FOUNDATION LECTURES. Subject: The Thyroid Gland. Charles H. Mayo, M. D., and Henry Plummer, M. D. Cloth 83 pages. Price, $1.75. C. V. Mosby & Co., St. Louis, Missouri.

The profession is fairly well acquainted with the Foundation Lecture Committee of the Wayne County Medical Society. Under the auspices of this committee Doctors Charles Mayo and Henry Plummer delivered the 4th lecture on the Thyroid Gland which is available for the profession in book form.

The able authors have covered the history, anatomy, physiology, bacteriology, and the other outstanding factors entailed in thyroid gland in this lecture in a manner which is most thorough and interesting. We can frankly state that never have we read such a concise, such a constructive as well as instructive discussion of this subject and we urge most heartily the wide distribution of this lecture that will prove to be most helpful to every medical man.

DISEASES OF THE SKIN: Richard L. Sutton, M. D., 1,300 pages, 1,147 illustrations. Sixth edition. Cloth, price $12.00. C. V. Mosby & Co., St. Louis, Missouri.

This sixth edition which spans a space of two years since the publication of the 5th edition establishes more firmly than ever the right to be classified as the leading text on American Dermatology. It is thoroughly revised, enlarged, and the discussions enhanced so that the text is an up-to-date presentation of the subject. The illustrations and style of discussion leave nothing to be desired. I commend the text most highly.

ABT'S PEDIATRICS: By 150 specialists. Edited by Isaac A. Abt, M. D., Professor of Diseases of Children, Northwestern University Medical School, Chicago. Set complete in eight octave volumes totaling 8,000 pages with 1,500 illustrations, and separate Index Volume free. Now ready—Volume VIII containing 1,102 pages with 388 illustrations and General Index to Volumes I to VIII. Cloth, $10.00 per volume. Sold by subscription. W. B. Saunders Company, Philadelphia and London.

This eighth volume completes this set which now is recognized as the most modern American authority on pediatrics. This eighth volume maintains the high standard of all the other volumes and is accompanied by a separate bound index of the whole series that enables one to very readily find that which he is seeking.

The author collaborators and the publishers are entitled to the many thanks of the American profession for having so placed at their disposal this reference authority on pediatrics. No practitioner or no individual in the several branches of medicine can afford to be without this set for reference in his daily work.

SURGICAL ANATOMY OF THE HUMAN BODY: John B. Dever, M. D. 551 pages. Vol. I. E. Blakiston's & Co. Philadelphia.

This is the first volume of the second edition of this text and covers the scalp, skull, brain, face, mouth, throat and the organs of special sense. Twenty-five years have elapsed since the original appearance of the first edition of this text. Greater emphasis has been placed upon surgical anatomy of the regions covered. As a result the text has been largely rewritten.

It is a rather trite statement that he who attempts surgery must be founded in anatomy. We desire to reiterate that statement and to further state that the basis of skillful surgery rests upon an understanding of anatomical principles and physiological functions. The ordinary text on anatomy is of value to the student but he who hold forth in the surgical field requires a greater intimate knowledge of detailed anatomy. That condition is covered by this wonderful text. The author is widely and favorably known, an outstanding man in the surgical world. The wealth of experience that is his in surgical practice is injected in the anatomical discussions that the text imparts. We know at the time of no other anatomical surgical writing that equals this work. We further know and positively so, that no surgeon can afford to be without this extremely valuable publication. It is well illustrated, clear in diction, arranged in pleasing form and outlines well the anatomical relations that are met in given operative procedures. We congratulate the author and publishers and express appreciation for providing this edition of Surgical Anatomy for the profession.

UROLOGY: O. S. Lowsley, M. D. and T. L. Kirwin, M. D. Cloth, 699 pages. 233 illustrations. Price $10.00. Lee and Fibiger, Philadelphia.

This text book is based upon the 18 years' study which its authors have devoted to laboratory research and clinical experiences and diagnosis and treatment of the diseases incorporated in this specialty. A careful perusal of the volume, the method in which each subject is presented, the diagnostic measures employed, the therapeutic and surgical treatment compel the conclusion that this is an excellent guide and a practical presentation of the subject. We are particularly impressed with the splendid manner in which assistance is imparted to the reader. This text is bound to be accepted as a standard work in this subject and is so commended.

EXPERIMENTAL PHARMACOLOGY AS A BASIS FOR THERAPEUTICS: H. H. Meyer and R. Gottlieb. With English translation by E. E. Henderson.

This is the second American edition of the seventh German edition of a well known text. We have not much to say in the way of criticism or comment other than that the contents is consistent with our modern understanding of therapeutics and that it amplifies the inteligent exhibition of therapeutic remedies based upon functional results and consequently obtaining the greatest benefit from the administration of various drugs.

(*Continued on Page* 370)

PUBLIC HEALTH ACTIVITIES

Edited By

MICHIGAN DEPARTMENT OF HEALTH

WHERE MICHIGAN STANDS

The value of all things is established by comparison. The size of a thing is not so important in itself as in its relation to other similar things. A thing may be very small in itself but when compared with similar things be very large. So it is true with our vital statistics rates.

A few years ago a rate of 150 for tuberculosis was not considered high because many communities showed a higher rate, but today when most communities show a lower rate it would be considered high.

Comparisons are odious perhaps, but sometimes they act as a damper on our egotism.

The 1925 figures for 31 of the states have just been released and it seems well at this time to study carefully WHERE MICHIGAN STANDS in comparison with the other states.

That there has been a decided falling of the birth rate is evident. The rate for 31 states falling from 22.6 per 1,000 population in 1924 to 21.2 in 1925, a decrease of 1.4 per 1,000 population. If this rate would apply to the whole United States with an estimated population of 120,000,000 it would mean that there were 168,000 fewer births in 1925 than in 1924. In Michigan the rate fell from 24.1 in 1924 to 23.1 in 1925. It is of interest to observe that the decrease was not as great in Michigan as it was in the United States as a whole.

In rank, Michigan held sixth place, being exceeded only by Kentucky, Mississippi, North Carolina, Virginia and West Virginia. These are all southern States and the southern birth rate is always higher than in the north. The highest birth rate was in North Carolina, 28.8, but this shows a fall from 32.2 in 1924.

The lowest rates were in Montana, 15.1, Washington, 16.4, Oregon, 17.9, Connecticut, 18.9 and Illinois, 19.1. A very few years ago a rate of less than 20 was considered sufficient evidence that births were not reported well, but it may be necessary to revise this conclusion. This is illustrated in Figure 1.

Professor George C. Whipple frequently said that the acid test of public health work was the death rate. For the 31 states this shows a reduction from 11.8 per 1,000 population in 1924 to 11.7 in 1925, Michigan being reduced from 11.6 to 11.5, but in comparison with the other states, Michigan

Fig 1

Michigan Department of Health
WHERE MICHIGAN STANDS
Comparison of the 1925 BIRTH RATE
with the other states

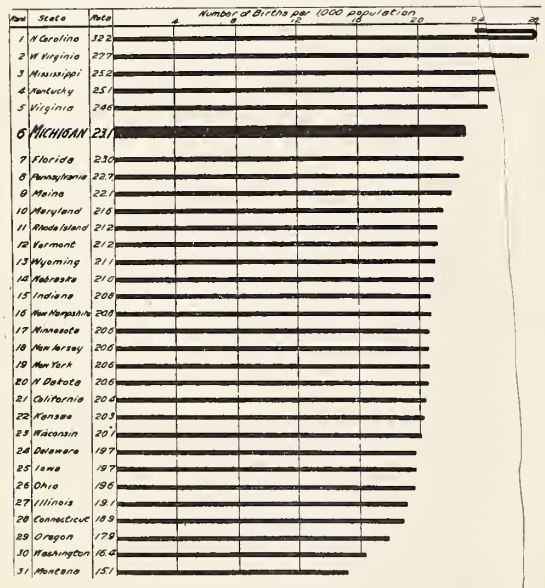
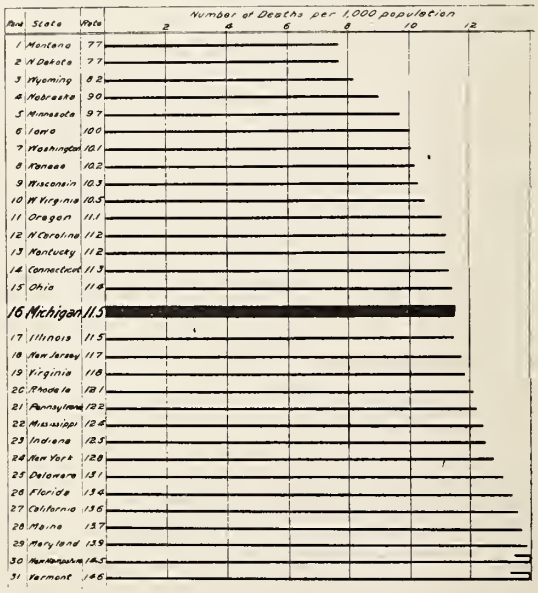


Fig 2

Michigan Department of Health
WHERE MICHIGAN STANDS
Comparison of the 1925 DEATH
RATE with the other states



stands fairly in the middle, ranking number 16 with 15 states higher and 15 states lower. Among the central and eastern states showing lower rates are Minnesota, 9.7, Wisconsin, 10.3, and Ohio, 11.4. Among those showing higher rates are New Jersey, 11.7, Pennsylvania, 12.2, Indiana, 12.5, New York, 12.8, Maryland, 13.9, and Vermont, 14.6. It must be considered that these are crude rates and no allowance is made for any factor which might influence the death rate. When we consider the character of the Michigan population with the distortion of the age distribution and variety of race stocks, it is satisfactory to see the rate below that of the United States Registration Area and lower than many of the states having well organized and effective health departments. This is illustrated in Figure 2.

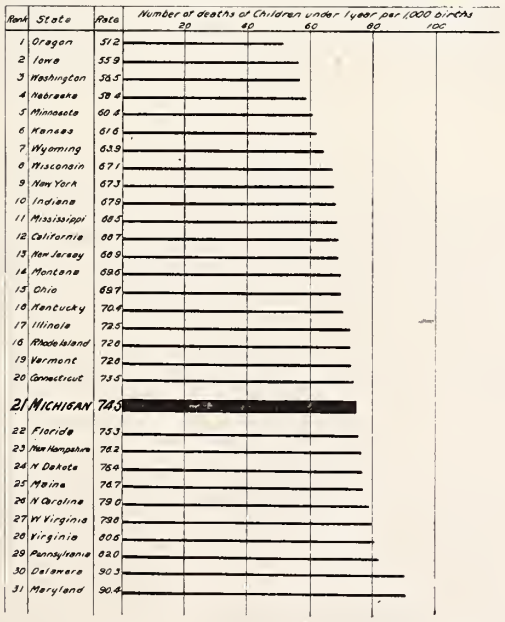
In the infant mortality rate the showing of Michigan is not so good, ranking 21st place of 31 states. For the whole group the rate rose from 71.0 in 1924 to 71.5 in 1925; Michigan increasing from 72.3 to 74.5. The only comparable state showing a higher rate was Pennsylvania, 82.0. Among the states showing more favorable rates are Wisconsin, 67.1, New York, 67.3, Indiana, 67.9, Ohio, 69.7 and Minnesota, 60.4.

These rates are based on the number of deaths of children under one year of age per 1,000 living births and with fair report-

Michigan Department of Health Fig 3

WHERE MICHIGAN STANDS

Comparison of the 1925 INFANT MORTALITY RATE with the other States



ing of births are accurate, as there is not the factor of error in population estimates as in birth and death rates. These are illustrated in Figure 3.—W. J. V. D.

SWIMMING POOL WATER STERILIZATION

The sanitary quality of swimming pool waters is becoming a health question of increasing prominence. This being an age of standardization we immediately ask for some criterion whereby the sanitary quality of a swimming pool water may be judged. The present standard recommended by the committee on bathing beaches at the 4th Annual Conference of State Sanitary Engineers at Washington in 1923 for the bacterial quality of water is given in sections 6 and 7 which are as follows:

Section 6. Bacteria count on agar or litmus lactose agar—24 hours—37° C. Not more than 10 per cent of samples covering any considerable period shall contain more than 100 bacteria per cubic centimeter. No single samples should contain more than 200 bacteria per cubic centimeter.

Section 7. B. Coli—Partial confirmed test. Not more than 2 out of 5 samples collected on the same day, or not more than 3 out of 10 consecutive samples collected on different dates to show a positive test in 10 cubic centimeters of the water at time when the pool is in use.

How shall we meet this standard? Sterilization is the answer, but here again we are questioned, how shall we sterilize? At present there are two common methods in use, namely, with ultra-violet rays and chlorination.

The ultra-violet ray process employs the mercury arc as a source of its rays. Sterilization is accomplished by bringing the polluted waters in direct contact with the rays. A limitation however exists in the use of ultra violet rays as an ideal swimming pool water sterilizer as the residual bactericidal effect is negligible. The results are that the incoming sterile water from the ultra violet ray machine on being brought in contact with the polluted pool waters merely dilutes the pollution in the pool instead of prohibiting it. This is an objectionable feature and can be best combatted at those places where ultra-violet ray machines are employed by allowing the machine to run continuously, thus insuring a safe water for the beginning of the succeeding day. However, even with this precaution a certain degree of pollution will exist in the pool waters as soon as bathing begins the next day. In other words, a pool depending on ultra-violet rays as its sterilizer always has some degree of pollution in its waters while bathing is in progress, and does not rid itself of this pollution until the entire contents of the pool has been recirculated one or more times. In this type of pool en-

tire recirculation occurs about every eight hours.

Sterilization by the application of chlorine may be accomplished in two ways, by dosing a chlorine solution obtained by dissolving calcium hypochlorite in water and by direct application of chlorine gas.

The application of a chlorine solution is rather cumbersome and therefore limited in its usefulness. The strength of chlorine in a given dose is always a matter for discussion while the application of the chlorine to the pool water requires sufficient work to be easily overlooked by the attendants. Its greatest use lies in the sterilization of the fill and draw type of swimming pool tank waters.

The ideal sterilizer for swimming pool water is afforded by the direct application of chlorine gas. The chlorine gas may be accurately measured and controlled by a mechanical device called a chlorinator which is, under normal conditions, simple to operate. Chlorine gas when dosed into the pool water in right proportions provides a residual bactericidal effect of sufficient strength to prohibit all pollution. The amount of residual or excess chlorine in the water at all times and at all points when the pool is in use should not be less than 0.2 p.p.m. nor more than 0.5 p.p.m.

Bacteriological controls are essential to good operation in all types of swimming pools while in the case of chlorinated pool waters an o-tolidin test should be made daily to ascertain the amount of residual chlorine present in the water.—R. J. F.

OIL POLLUTION A GROWING MENACE

Modern manufacturing methods and the automobile call for the use of large quantities of oil as fuel and as a lubricant. This increased use of oil has brought about a problem of oil waste disposal, a solution of which does not appear to have been attempted to any great extent.

The practice of discharging oil into sewers and hence to the rivers and lakes is growing rapidly. This form of pollution is a menace to the public health, comfort and welfare in a number of ways. Oil spreads over water in a thin film, preventing it from coming in contact with the air and thus hindering aeration, a process necessary to the life in the stream and to the self purification of the water of the stream. It forms a covering over the shores and kills the vegetable growth both in and out of the water. It makes the stream absolutely unfit for bathing and swimming purposes. In cities where the water front is used for shipping purposes the oil collecting around the boats and docks constitutes a great fire hazzard.

This oil pollution has been growing rapidly during the last year. Observations and inspections have indicated that more and more oil is being disposed of by this method of least resistance and is now present in such proportions as to be termed one of the greatest, if not the greatest, form of pollution. Most forms of pollution are taken care of in time by the processes of the stream. Oil pollution is accumulative.—E. F. E.

SWABS FOR EXAMINATION FOR TUBERCULOSIS

In the Journal of the American Medical Association for March 27, 1926, an article entitled "Sputum Examination in So-Called Closed Tuberculosis" was published. This recommended a technic for obtaining material by means of swabs from patients with tuberculosis involvements in the absence of expectoration.

Since the article appeared, the laboratory of the Michigan Department of Health has received several swabs for the examination of tuberculosis, presumably taken in the manner sugested. These, however, by the time they are mailed to the laboratory, have been too dry for making satisfactory stained preparations. It is only after soaking the swabs in saline and centrifuging the solution that material for microscopic examination can be obtained.

It has been suggested, then, that if the doctor would smear his swab on several glass slides while the material is still moist, the presence of the tubercle bacilli could be demonstrated much more often than by sending the swab to the laboratory. Swabs should not be sent except in cases where no sputum can be obtained.—L. M. R.

ONE CITY'S WATER SUPPLY PROBLEM

The public water supply for the city of Greenville, Michigan, is pumped from wells 35 to 45 feet deep. The wells are located in an outwash plain along the Flat river and extend down to a layer of dense clay. Unlike most outwash plains of the state, the entire depth above the clay layer is a fine sand.

The water system and the first wells were constructed in 1888, with the pumping station located about 400 feet north of the river. Since that time additional wells of different types have been driven in all directions from the pumping station at a maximum distance of about 400 feet. The wells are pumped by a direct suction of steam pumps located at the ground surface, which limits the draw down of the wells to a maximum of about 23 feet.

At about the same time the water works was constructed a coal gas plant was built to supply the city with gas for domestic use. The gas plant is located about 600 feet from the river bank in a southerly direction, up stream and across the river from the water works. The straight line distance from gas plant to water works station is 1800 feet. The gas plant produces a small volume of liquid waste containing many soluble organic substances which have a strong tarry odor or taste. Because of the porous nature of the soil it has not been necessary to remove these wastes through a pipe line as they readily soaked away into the sand about the plant.

In 1923 four new wells were constructed, one of them located near the river bank and yielding about 500 gallons per minute.

Although in 1919 some water consumers began complaining about disagreeable tastes in the water supply, these tastes were not decidedly objectionable until the summer of 1925. At that time an unusual drought was experienced and by the end of the summer months the city water supply had a strong tarry odor. Samples from different wells proved that the one located near the river was responsible for most of the taste, which was identical with the odor of the waste from the gas plant.

Inquiry disclosed the fact that in past years it has been necessary for house holders to abandon private wells located between the gas plant and the water works station because of tarry tastes, but it was assumed that the city wells would not be affected because of the distance between them and the gas plant, and because they were located across the river.—W. C. H.

USE OF CONTAINERS

It has been an encouraging sign of the past six months that more doctors have adopted the containers furnished by the laboratory. The reason for this is doubtless the greater satisfaction found in reports made on specimens so forwarded.

For example, when blood or feces specimens are sent in the proper containers and with laboratory blanks filled out, they pass quickly through the laboratory and are reported upon in the shortest possible time. On the other hand, when no information is given with the specimen, and the examination wished is only a matter of conjecture, the specimen is held up a day waiting for information by letter. If it is not received at the end of that time, the files are studied to see what examination that particular doctor usually wishes on such a specimen. When this cannot be determined, the specimen is given several different examinations in order that the doctor may receive the one desired. This aditional work may delay the report 24 to 48 hours.

It, therefore, follows that more doctors are getting better laboratory service, as more take advantage of the convenience of using laboratory containers.—C. T.

PREVALENCE OF DISEASE

May Report

Cases Reported

	April 1926	May 1926	May 1925	Average 5 years
Pneumonia	1,204	590	528	600
Tuberculosis	493	628	524	647
Typhoid Fever	18	23	33	60
Diphtheria	304	349	239	459
Whooping Cough	811	645	759	649
Scarlet Fever	1,396	1,288	1,321	973
Measles	6,526	6,444	2,331	3,264
Smallpox	28	45	86	328
Meningitis	11	11	11	15
Poliomyelitis	2	4	6	3
Syphilis	1,352	1,212	1,180	786
Gonorrhea	853	729	884	723
Chancroid	12	4	8	2

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health

May, 1926

	+	−	+−	Total
Throat Swabs for Diphtheria				991
Diagnosis	30	427		
Release	91	185		
Carrier	1	255		
Virulence Tests	1	1		
Throat Swabs for Hemolytic Streptocci				589
Diagnosis	204	129		
Carrier	57	199		
Throat Swabs for Vincent's	22	434		456
Syphilis				6479
Wassermann	9	21	1	
Kahn	1171	5184	92	
Darkfield	1			
Examination for Gonococci	168	1668		1836
B. Tuberculosis				643
Sputum	126	485		
Animal Inoculations	6	26		
Typhoid				151
Feces	11	60		
Blood Cultures		12		
Urine		6		
Widals	21	40	1	
Dysentery				48
Intestinal Parasites				26
Transudates and Exudates				162
Blood Examinations (not classified)				615
Urine Examinations (not classified)				401
Water and Sewage Examinations				669
Milk Examinations				77
Toxicological Examinations				1
Autogenous Vaccines				3
Supplementary Examinations				403
Unclassified Examinations				1827
Total for the month				15377
Cumulative Total (fiscal year)				192681
Decrease over this month last year				4218
Outfits Mailed Out				13795
Media Manufactured, c.c.				547070
Diphtheria Antitoxin Distributed, units				21219000
Toxin Antitoxin Distributed, c.c.				20250
Typhoid Vaccine Distributed, c.c.				1433
Silver Nitrate Ampules Distributed				4100
Examinations Made by Houghton Laboratory				2988

The Journal
OF THE
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ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

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The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications, or advertisements.

Subscription Price—$5 per year, in advance

JULY, 1926

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

MINUTES OF THE REGULAR MONTHLY MEETING OF THE EXECUTIVE COMMITTEE OF THE COUNCIL

The regular monthly meeting of the Executive Committee of the Council of the Michigan State Medical Society was held in Grand Rapids on May 27th and the following were present:

Chairman Jackson, R. C. Stone, George L. LeFevre, B. R. Corbus, F. C. Warnshuis, and Harvey George Smith.

1. The monthly trial balance of the books of the Society was submitted and approved.

2. The Secretary presented a communication from Dr. Bruce in answer to a letter of the Secretary, expressing willingness of the University to put on a three-day Post-Graduate Conference at the University Hospital. The preliminary plans of this Conference, as outlined by the Secretary, were approved and the Secretary instructed to continue with the arrangements.

3. The Secretary and the Executive Secretary were authorized to make the best possible arrangements for a Post-Graduate Conference in the Upper Peninsula.

4. The Executive Committee then devoted itself to a discussion of the plans for the Annual Meeting in Lansing on September 14, 15 and 16. President Darling outlined his wishes and desires regarding that Annual Meeting. The Secretary presented an outline of the arrangements perfected through his office and by the Ingham County Medical Society.

In order to facilitate the program of that meeting it was decided that the House of Delegates would meet at 10:30 a. m., at 2 p. m. and 7 p. m. on the first day and to complete its business with the evening session of that day in order that the two subsequent days might be unhampered by meetings of the House of Delegates.

President Darling outlined his plans for the first general meeting and the Secretary was instructed to extend invitation to the individual nominated by President Darling.

Upon motion the Secretary was requested to request the Chairman of the several sections to nominate speakers for the General Scientific meetings.

The meeting adjourned at 9:30 p. m.

IODIZED SALT

Recently an article in The Journal of the A. M. A. by Hartsock, condemned iodized salt. Inasmuch as iodized salt was inspired by our State Society through our Pediatric Section this charge aroused our interest. We were concerned lest the good results attained might be jeojardized. The following letter confirms former conclusions and is imparted for the information of our members:

June 7, 1926.

Secretary-Editor, Michigan State Medical Society,

I at last have an opportunity to comment regarding your letter in reference to the Hartsock article on iodized salt.

We addressed a letter to all physicians in the state asking if any iodized salt had come to their attention. To the present time we have ben unable to locate a single authentic case but several cases that have been benefited have been quoted to us.

We have re-surveyed Wexford County, one of the four counties originally surveyed to determine the prevalence of goitre, and found a 25 per cent reduction.

You will be interested in the comment I received from Dr. O. P. Kimball on the Hartsock article: "You will prevent goitre with iodized salt. Don't expect any bad results. Recent articles in Journal A. M. A. not to be relied on."

Of course there is no law in Michigan compelling the sale of the salt. The salt manufacturers merely agreed to place it on sale through the grocery stores.

Very truly yours,

R. M. Olin, M. D.,
Commissioner.

FURTHER FALLACIES OF THE SHEPPARD-TOWNER PROPAGANDA

WILLIAM C. WOODWARD

Executive Secretary, Bureau of Legal Medicine and Legislation of the American Medical Association, Chicago.

1. In support of pending legislation to authorize appropriations to carry the Sheppard-Towner Act into effect for two years beyond the date originally set for it to expire, it is urged that this is merely a temporary experiment, designed to prevent the loss of the money and effort already expended under the Act. The record shows, however, that is not the case. The extension of the Sheppard-Towner Act now sought, for two years only, is merely one of a series of extensions that will be sought if this extension be granted. In fact, proponents of the Sheppard-Towner plan regard the Act as permanent legislation.

In the report of the hearing before the Committee on Interstate and Foreign Commerce, House of Representatives, January 14, 1926, on H. R. 7555, the bill authorizing further appropriations for carrying the Sheppard-Towner Act into effect, on page 51, we find the following statement by Miss Grace Abbott, Chief of the Children's Bureau:

"The committee is familiar with the fact that the legislation enacted in the maternity and infancy act is permanent; the only thing that is not permanent is the authorized appropriation for the five-year period."

In the Congressional Record, April 5, 1926, page 6725, the same view was stated by Representative Barkley, when he spoke in support of the bill:

"My only regret is that this authorization is limited to two years. I would advise gentlemen of the fact that this is permanent legislation. The Sheppard-Towner bill is a permanent law. It only provided originally for a five-year authorization of appropriations. This merely extends the authorization two years, but the law itself is permanent law. . . ."

The same view was adopted by Senator Sheppard, in the Congressional Record, April 14, 1926, page 7254:

"As to the present status of the measure, let me add that, after consultation with the Budget Bureau and the President, the Secretary of Labor transmitted to Congress a recommendation for the continuation of the appropriations under the maternity act for two additional years. The act itself is permanent legislation."

It could not well be made clearer that the proponents of this legislation expect to keep the Sheppard-Towner plan as a permanent part of our Federal organization. But whether they do or do not plan to go that far, it is clear that they have no intention whatsoever of abandoning the scheme at the end of the two-year extension they now seek. For turning to the printed report of the hearing before the Committee on Interstate and Foreign Commerce, House of Representatives, we find the following:

"Mr. Newton: Now this further question. Do you consider that the two years is sufficient?

"Miss Abbott: Well, I do not consider it sufficient if it is to end at the two-year period. I did not think in asking that period of time that was the intention either of the Secretary of (or) the President that there was to be no further extension after the two-year period." Page 12.

"Mr. Lea: What time would you specify for a certainty that, in your judgment, the United States should remain in this work?

"Miss Abbott: Well, I do not want to specify for a certainty.

"Mr. Lea: Do you think four years?

"Miss Abbott: No; I would rather say five as the time that the Government would without question need to continue the work.

"Mr. Lea: You are certain that the Government should stay in for five years?

"Miss Abbott: Personally, I am; yes. But I am supporting the recommendation of the Secretary and the President for the two-year period, with a view to showing accomplishments and needs still existing at the end of that time." Page 14.

"Mr. Rayburn: You would not hazard an opinion on just when you think you could recommend that the Government go out of this supervision?

"Miss Abbott: No; because I think it is a factual thing. I am not a prophet, after all, as to when that condition may come to pass." Page 15.

With such testimony as that of Miss Abbott, the statement that has been made in support of the pending bill, that "there is no disposition to extend Federal co-operation beyond the next one or two years," is certainly without foundation.

2. Attempts to justify an extension of the life of the Sheppard-Towner Act by showing the extent of activities in the field of maternal and infant hygiene since that act was passsed are inadequate unless they show the results of such activities, and this they do not do.

"Child-health conferences," "school conferences," "infant clinics," "institutes," "public talks," "patterns distributed," "milk letters, with instructions to mothers," and similar activities (Congressional Record, April 14, 1926, pages 7254-7272) are at best merely agencies to conserve health and life. Evidence showing only that such activities are going on does not prove that they are accomplishing that result. Such evidence is even further from proving that such activities are being conducted efficiently and economically, or that they are being conducted under the Sheppard-Towner Act better than they could have been conducted by the states alone. The evidence offered is inadequate, too, to permit intelligent judgment as to the relation of such activities to the Sheppard-Towner Act, for such evidence very generally fails to show the nature and extent of similar activities in the same jurisdictions before the act was passed.

3. The assertions that have been made that

have been substantial reductions in infant and maternal mortality, with the implication that such reductions have been due to the Sheppard-Towner Act, are not supported by the evidence.

In the Congressional Record, April 5, 1926, on page 6720, in the argument of Representative Newton in support of the Act, the following appears:

"Since the operation of this act there has been a substantial decrease in both infant mortality and the maternity death rates."

Representative Newton then submits tables showing that in the three Sheppard-Towner years, 1922-1924, inclusive, the infant mortality rate for the registration area fell from 76 to 72, and the maternal mortality rate fell from 6.8 to 6.6. Such a decline could hardly be regarded as "substantial." But even if it were, it could not be accepted as an argument in favor of the Sheppard-Towner Act; for during the three years immediately preceding, namely, 1919-1921, inclusive, the infant mortality rate fell from 101 to 76, and the maternity rate fell from 9.2 to 6.8. Of course, we know the improvement shown by the figures last stated was only relative and that the decline was great because of the high mortality due to influenza in the year preceding the triennium named and from which the decline is computed. But what the improvement in 1922-1924 was due to, and how long it will continue, we do not know.

As a fallacious argument offered in support of the Sheppard-Towner bill recently passed by the House, we find the following by Representative Barkley, in the Congressional Record, April 5, 1926, page 6725:

"Taking the United States as a whole, in 1920, which was the year before the enactment of this law, the number of children who died in infancy amounted to 86 out of every 1,000 in the United States. In 1924, four years after the passage of this law, the death rate among children in the United States had been reduced from 86 to 71 per 1,000. This is a reduction of nearly 20 per cent in less than four years."

The Sheppard-Towner Act was not approved until November 23, 1921. Obviously, its enactment could not have influenced the infant mortality rate for 1921. Why, then, did not Representative Barkley take the infant mortality rate for 1921 as a basis for comparison, instead of the infant mortality rate for 1920? The infant mortality rate for 1921 was 76. The decline, therefore, under the Sheppard-Towner regime was from 76 to 72. It was only 1 per cent in three years, not 20 per cent in less than four years as stated. And no evidence is offered to show that the Sheppard-Towner Act had anything to do with even such decline as did occur.

4. Statements made to show the extent to which infant maternal mortality are preventable, in support of an argument for the enactment of the pending legislation, are without adequate foundation.

In the Congressional Record, March 31, 1926, page 6434, Senator Sheppard is quoted as referring to certain studies and investigations made by the Children's Bureau as follows.

"It was found that nearly 20,000 mothers and almost 20,000 infants under 1 year of age were dying in the United States every year from lack of proper knowledge as to the hygiene of maternity and infancy."

As a matter of fact, according to the Twenty-fourth Annual Report of the Bureau of the Census, covering Mortality Statistics, 1923, published in 1926, page 126, there were in the entire registration area of the United States in 1923, only 166,274 deaths of children less than one year old, from all causes. The estimated population of the registration are was 96,986,371, and the estimated population of the entire continental United States was only 110,663,502. (See Report cited, page 8.) And yet, unless Senator Sheppard has misinformed us, investigations by the Children's Bureau disclosed the fact that almost 200,000 infants under one year of age die in the United States every year from lack of proper knowledge as to the hygiene of maternity and infancy. If the reported findings of the Children's Bureau are correct, where do the extra 34,000 babies come from each year, who die from lack of proper knowledge? And where do all the babies come from who die every year from other causes?

A similar discrepancy exists with respect to maternal mortality. In support of the Sheppard-Towner Act, the Children's Bureau is quoted as authority for the statement that "nearly 20,000 mothers . . . . were dying in the United States every year from lack of proper knowledge as to the hygiene of maternity and infancy." And yet the Report of the Census Bureau, cited above, page 176, shows that the total number of deaths in 1923 in the entire registration area, containing nearly nine-tenths of the population of the continental United States, from accidents of pregnancy and labor, and hemorrhage, blood poisoning and other conditions incident to the puerperal state, was only 15,505.

5. Comparisons between maternal mortality in the United States and maternal mortality in other countries, to the discredit of the United States, are not justified by comparable records.

Referring to studies and investigations made by the Children's Bureau, Senator Sheppard, according to the Congressional Record, March 31, 1926, page 6434, said:

"Reports from the birth-registration area of the United States showed that from 1915 to 1920 the death rate of mothers from causes relating to maternity was increasing. It was shown that the death rate of mothers in the United States from these causes was the highest for any nation in the world for which recent figures could be obtained, and that seven foreign countries had infant death rates lower than the United States."

The reason for the increase in maternal mor-

tality in 1920 as compared with maternal mortality in 1915 is not hard to find. In 1920 many expectant mothers died from influenza, and their deaths were charged to pregnancy; in 1915, influenza did not contribute to such mortality.

But probably the most overworked figures that have been used in the support of the Sheppard-Towner propaganda are such as those referred to above, purporting to show an exceedingly high maternal mortality rate in the United States as compared with the maternal mortality rates in other countries. Concerning comparisons of that kind, the Bureau of the Census has this to say:

"As already pointed out, the classification of deaths from puerperal causes differs greatly in different countries. Higher rates in one country than in another, therefore, do not necessarily mean higher mortality from these causes. However, as classification in a given country presumably differs but little from year to year, the rates do presumably serve as useful measures of mortality from these causes within the country itself.

"Comparing the rates of 1923 with those of 1915, for puerperal septicemia, the United States shows the same rate for both years, England and Wales a reduction of 13.3 per cent in its rate, Australia an increase of 30.8 per cent. New Zealand an increase of 137.5 per cent, and Scotland the same rate for both years. For other puerperal causes, the United States shows an increase of 5.4 per cent; England and Wales a decrease of 7.4 per cent; Australia an increase of 17.2 per cent; New Zealand a decrease of 15.4 per cent; and Scotland an increase of 7.1 per cent." Twenty-fourth Annual Report, Bureau of the Census, Mortality Statistics, 1923, published in 1926, page 64.

Just what comfort Sheppard-Towner propagandists can get out of these figures is hard to see.

6. Even if it could be admitted that infant and maternal mortality rates were as bad as the proponents of the pending legislation assert, and that it is as easily reducible as some of them claim, there is no evidence to show that preventive measures can be applied more effectively by the federal government than by the state.

So far as is known, not a single advance in methods for preventing infant and maternal mortality has been made by the Children's Bureau since the Sheppard-Towner Act was passed. It has merely adopted methods devised and in use by the several states and cities of the country. Obviously, supervision and control of such activities over the entire land area of the United States, approximately 3,000,000 square miles, by a federal bureau in Washington, must entail a heavy overhead expense—or must be supervision and control on paper only.

June 8, 1926.

Grand Rapids, Mich.

Secretary-Editor, Michigan State Medical Society,

Bills are pending in Congress to extend the life of the Sehppard-Towner Act, which our House of Delegates in 1922, condemned as a type of undesirable legislation that should be discouraged. To make the action of the House of Delegates effective, the cooperation of State Associations and County Societies and of individual members is needed. Your assistance is therefore earnestly requested.

The accompanying pamphlet, "Further Fallacies in Sheppard-Towner Propaganda," supplements the article in our May Bulletin."The Sheppard-Towner Act: Its Proposed Extension and Proposed Repeal." Copies of both articles will be sent to you on request. Or if you prefer, send me the names and addresses of persons to whom you wish copies sent, and they will be mailed from this office with letters saying that you have asked that it be done. Prompt action is needed.

Can you not submit this matter, or the gist of it, to the readers of your Journal in your next issue?

A copy of this letter is being sent to the President of your Association.

Yours truly,
Wm. C. Woodward,
Executive Secretary,
Bureau of Legal Medicine and Legislation.

BIRTH CONTROL

From time to time we have received letters relative to the subject of birth control and the movement existant for its promulgation. Some of these correspondents have berated us for failure to aid. Others have asked us to attack President Little's position and actively. Again we have been criticized because we didn't oppose those who were attacking proponents. It must be at once clear that we are damned if we do and thrice damned if we don't. The Journal has no desire of entering into a controversy that presents two elements—science and religion. If we were to assume any position it would be on the side of the scientific and the social economic view. That is our position for The Journal is the organ of a scientific body and holds itself strictly aloof from theology, dogmas and creeds as laid down and instituted by church, priest or minister.

We exceedingly regret that the church and religion has injected itself into a scientific problem. That it assumes an attitude and position that ignores scientific premises and actual social conditions. That the church pushes aside all facts that conflict with their religious tenets. We regret that the churches edict cause men of scientific training and knowledge to ignore science and accept the dictum and dogma of the church. That happens so often—men of high mental training, holding responsible educational positions become narrowed and delusioned and do untold harm because they decline to reconcile their theories to actualities—and the fight is on.

Things change, times change, conditions change and individuals and groups likewise must change and adapt themselves to present conditions. We can't do things in the same way forever. Traditions, superstitions and habits of the past, the distant past, cannot dominate the

present if we are to progress. Hence we must cultivate the open, receptive mind and permit actualities to guide us in reaching conclusions.

Reasoning from these actualities, reviewing existing social conditions, surveying the economics of present day living conditions and then revolving these actual facts it becomes quite evident that methods for instituting birth control must be instituted despite the theologians argument to the contrary. Science, and social conditions that exist, causes that conclusion to be reached if we approach the subject without the bias of religious views. We stand for a sane, temperate review of the subject and hope that birth control may be imparted to the public for the good of all people, our institutions of church and state and for the relief of our deteriorating social and economic conditions.

A BRIEF HISTORY OF THE GRATIOT, AND THE GRATIOT-ISABELLA-CLARE COUNTY MEDICAL SOCIETY

By E. M. HIGHFIELD, Secretary.

The present writer is indebted to Dr. I. N. Brainerd for the description of the first organization of a Medical Society in Gratiot County of which he was Secretary until the reorganization in 1902. Unfortunately the first records have not been kept, so that these first paragraphs are from the doctor's memory and obviously are not complete.

The Gratiot County Medical Society was organized in 1887. The charter members were Stiles Kennedy, W. D. Scott, A. J. Ervey, C. L. Barber, W. M. Weller, J. P. Carpenter, Lydia Higgins, J. H. Hamilton, and I. N. Brainerd.

The most distinguished among these men were Dr. Stiles Kennedy of St. Louis, and Dr. W. D. Scott of Ithaca. These men have been so long dead that this eulogium will not seem invidious. They were among those most cheerfully to contribute to the success of the meetings, which were held once every month.

Our programs consisted of three papers each month, often made upon the symposium plan. These were most helpful. The first paper ever read before this Society was upon "Colles' Fracture." But as all records have been destroyed up to 1902, I can not name the writers and their papers.

It must not be supposed that the programs were always rendered in full. The members "flunked" then just as they do now; but this member looks back to those "good old days" with a great deal of pleasure.

Thirty-nine years after the fact is a long time; all but four of those original members are dead. It must not be supposed that the meetings always materialized; but the Society always maintained a visible organization, until the reorganization in 1902.

The second call to organize the doctors of Gratiot County was issued by Dr. Geo. E. Butler of Alma, to which the following responded October 23rd, 1902.

G. E. Butler, I. N. Brainerd, G. S. Browning, Alma; W. M. Weller, J. P. Carpenter, W. D. Scott, Ithaca; H. F. Kilborn, Perrington; W. M. Drake, Breckenridge; B. C. Hall, Pompeii; F. J. Smith, Sickles; E. L. Street, Wheeler; W. B. Clark, Stiles Kennedy, St. Louis.

Dr. Bulson of Jackson, Dr. Connor of Detroit, and Dr. Dodge of Big Rapids, officers of the State Society, were present to assist in effecting the organization.

The following were duly elected officers:

George E. Butler, President; W. D. Scott, Vice President; W. M. Weller, Secretary and Treasurer.

The second meeting to complete the organization, and adopt a constitution and by-laws was held in Ithaca, November 6, 1902 in Dr. J. P. Carpenter's office. The third meeting was held in Brainerd Hospital in Alma, December 4, 1902.

At this meeting it was decided to meet every three months. The first paper was read at this meeting by Dr. George F. Butler entitled, "Neurasethenia."

We find the following 25 doctors given as charter members of this second organization:

I. W. Brainerd, George F. Butler, G. S. Browning, E. A. Bagley, Alma; Stiles Kennedy, W. B. Clark, A. R. Wheeler, G. W. Petty, D. H. Andrews, St. Louis; B. C. Hall, Pompeii; H. F. Kilborn, Perrinton; E. L. Streett. A. J. Ervey, Wheeler; J. P. Carpenter, W. D. Scott, W. M. Weller, I. N. Monfort, Willard Monfort, F. McCandless, Ithaca; F. J. Smith, Sickless; W. M. Drake, L. A. Howe, C. S. Watson, Breckenridge; Charles A. Crane, North Star; F. J. Graham, Sumner.

Out of these the following are still in practice in Gratiot County:

I. N. Brainerd, Alma; B. C. Hall, Pompeii; H. F. Kilborn, Ithaca; W. M. Weller, Ithaca; W. M. Drake, L. A. Howe, Breckenridge; F. J. Graham, Alma.

The following are known to have died:

G. F. Butler, A. R. Wheeler, A. J. Ervey, D. H. Andrews, E. A. Bagley, J. P. Carpenter, G. W. Petty, Stiles Kennedy, W. D. Scott, F. J. Smith.

The following moved from the County, the address of some not being known.

G. S. Browning, F. McCandless, W. B. Clark and C. S. Watson, Saginaw; I. N. and Willard Monfort, Detroit; C. A. Crane, Corunna.

Meetings were held every three months, usually in Alma, but some were held in St. Louis

and Ithaca. In looking over the minutes of those first meetings one finds many of the same questions come up then as now. For illustration, we find a fee bill was discussed pro and con for several meetings before one was adopted. Then we find resolutions urging the Legislature to pass this bill or opposing that bill. In November, 1905, Dr. A. R. Wheeler made a motion that we ask the State Board of Health to make bacteriological examinations. This is interesting in view of the large amount of work the State Board of Health now does along laboratory lines.

For the year 1904 the following officers were elected:

President, I. N. Brainard; Vice President, I. N. Monfort; Secretary-Treasurer, G. S. Browning.

The officers for 1905 were:

President, I. N. Brainard; Vice President, W. M. Weller; Secretary-Treasurer, E. A. Bagley.

The officers for 1906 were:

President: A. R. Wheeler; Vice President, N. F. McClinton; Secretary-Treasurer, W. E. Barstow.

The officers for 1907 were:

President, E. A. Bagley; Vice President, Charles Watson; Secretary-Treasurer, N. F. McClinton.

For some reason Dr. McClinton did not act as Secretary-Treasurer and Dr. J. N. Day was appointed and acted as Secretary-Treasurer for 1907 and 1908.

At the Annual Meeting, November 22, 1906, we find the following resolution was passed:

"RESOLVED, That it would be mutually advantageous to unite our Society with that of Isabella-Clare Counties."

At the next meeting, February 28, 1907, a motion was made and carried that we invite the Isabella-Clare County Society to meet with us at Ithaca. This meeting was held at the Court house, June 13, at which the following doctors from Isabella-Clare were present:

Doctors Pullen, McRay, Gruber, Abbott and Spooner. Nothing further is found in the minutes relating to the two Societies joining at this time.

The officers for 1908 were:

President, C. S. Watson; Vice President, W. M. Weller; Secretary-Treasurer, J. N. Day.

At the February 20th meeting a motion was carried that the next meeting be held in St. Louis, and be devoted to honoring Dr. Stiles Kenendy. This meeting was called the Kennedy meeting and was held in the Presbyterian Church in St. Louis, May 22, 1908. Dr. I. N. Brainerd was the orator of the evening at which he described the life of Dr. Kennedy. Dr. W. D. Scott on behalf of the Society presented Dr. Kennedy with a loving cup.

The services at the church were followed by a banquet at the Park House at which the following toasts were responded to:

"Dr. Kennedy, The Young Physician's Friend," Dr. W. M. Drake.

"The Growth of Fraternalism among Physicians," I. N. Brainerd.

"Dr. Kennedy as a Man and Citizen," James K. Wright.

"Physician and Patient," Mrs. Frances E. Burns.

One more meeting of this character was held to honor Dr. W. D. Scott of Ithaca, May 28, 1909, and then we do not find any record of meeting to honor any more doctors until the farewell to Dr. E. A. Bagley, September 12, 1919, which will be described later.

The officers for 1909 were:

President, J. N. Day; Vice President, Geo. W. Petty; Secretary-Treasurer, W. M. Drake.

The officers for 1910 were::

President, W. M. Weller; Vice President, N. F. McClinton; Secretary-Treasurer, F. McCandless.

Two meetings were held this year, February 17th and May 30th, and then the records don't show what happened, but no records of meetings are made until May 25, 1911, when Doctors Haughey, then Secretary of the State Society, and Seeley Councilor met with the following doctors: Bagley, Lamb, Gardner, Suydam, Brainard, Barstow and Petty, and reorganized the Gratiot County Society by electing C. B. Gardner, President, J. N. Day, Vice President, and W. E. Barstow, Secretary-Treasurer. From this time until the present the records appear in the present writer's own hand writing.

Three meetings were held in 1911, at the last meeting, December 8th the following were elected officers for 1912:

President, J. R. Shaffer; Vice President, F. J. Graham; Secretary-Treasurer, E. M. Highfield.

This election deserves more than passing notice, for all three officers were from the extreme western side of the county. Elm Hall, Summer and Riverdale, and all three towns are now without a doctor.

Dr. Shaffer, who joined the Society at this time for the first, so far as records show, practiced in Elm Hall about 35 years, moved to Detroit about 10 years ago, where he died this past winter. Dr. Shaffer was a character and was noted for his peculiarities.

The writer as a new physician in the county, learned to like him as a neighbor and friend and found him a good councilor, ethical and resourceful at all times. Another doctor who had practiced in the county about 35 years also

joined the Society at this time for the first, Dr. Charles McLachlin of Elwell. He came to Elwell when the county was new, and had a large practice; he was known far and wide as old Doctor Mac and was famous as a story teller and for his ability to jolly his patients through a serious illness.

Four meetings were held in 1912. At the last the following officers were elected for 1913: President, W. E. Barstow; Vice President, F. J. Graham; Secretary-Treasurer, E. M. Highfield.

Four meetings were held in 1913. At the last the following officers were elected for 1914: President, I. N. Monfort; Vice President, E. H. Foust; Secretary-Treasurer, E. M. Highleld.

At the regular quarterly meeting, May 19, 1914, at the Park House in St. Louis, State Secretary, F. C. Warnshuis being present, the plan of having monthly meetings was adopted. The first monthly meeting being held June 30, 1914, at the Brainard Hospital, Dr. C. D. Brooks of Detroit being our out of town speaker. Subject: "Diseases of the Thyroid."

At the second monthly meeting the plan of having one picnic a year was adopted, the first one being held at Crystal Lake, September 1, 1914.

For some reason the picnics were never well attended and after three or four years were dropped for want of interest.

At the sixth monthly meeting in the Wright House, December 15, 1914, which was also the annual meeting, a motion was made and carried that we have an annual banquet, to which we invite our wives. With one or two exceptions these have been held each year since. We think perhaps 1914 was our best year, judging by the Secretary's annual report, which showed we had 33 doctors in the county, of whom 30 were members of the Society, with an average attendance of 16.

At this meeting E. H. Foust was elected President, and C. B. Gardner, Vice President; and we wil not mention the Secretary for by this time he seems to be a permanent fixture.

During 1915, we judge from the records, we were not able to keep up the monthly meetings for we find there was no meeting in June, July and September.

At the November 16th meeting a motion was made and carried that the Secretary invite the Isabella-Clare County members to join us at the annual meeting in December to talk over the advisability of joining together.

Pursuant to a joint notice this meeting was held in the Wright House, December 16, 1915, 18 members from Gratiot County and 5 members from Isabela-Clare Counties being present.

After some discussion motion was made and carried that the two Societies join to form the Gratiot-Isabella-Clare County Medical Society, so that last January we were ten years old. Dr. I. N. Brainard was the first President and Dr. C. D. Pullen first Vice President. The first year as a combined Society we had 10 meetings, at one of which we had a banquet, and one picnic.

The resolution that we meet once a month was originally made at the Secretary's suggestion and has never been rescinded. In practice this has been hard to carry out, especially in the winter when the roads are so nearly impassable. In ten years we have had 78 meetings or an average of nearly eight meetings a year. The past ten years is too recent to need reporting in detail. The was period was a time of many changes. C. B. Gardner and A. A. McNabb of Alma; C. D. Pullen of Mt. Pleasant, and M. C. Hubbard of Vestaburg were in the service during the war. Each returned to their former office, Dr. Gardner bringing Dr. Chas. F. DuBois, who was also in the service. Shortly after Dr. Gardner moved to Lansing.

The records show we formerly had feeds much more frequent than recently, possibly this may account for another change where as we formerly were able to get our own members to contribute to a program, and we used to have 3 or 4 papers at a meeting, now it is very difficult to get our members to respond when requested to prepare papers. and it is also regretable that the attendance is less to hear our members than to hear visitors.

Two more meetings need to be reported and then we can close this history.

Farewell to Dr. E. A. Bagley. On September 12, 1919, Dr. and Mrs. E. T. Lamb opened their beautiful home to the profession of Gratiot County for a farewell to Dr. E. R. Bagley. Twenty-four doctors were at the dinner, after which Dr. E. H. Foust acted as toastmaster, and the following responded: I. N. Brainerd, I. N. Day, A. R. Wheeler, F. J. Graham and N. F. McClinton.

On behalf of Dr. Bagley's many friends in the profession Dr. W. E. Barstow with appropriate remarks, then presented the doctor with a gold watch, engraved, from the Gratiot County Medical Society. Dr. Bagley being nearly overcome with emotion, responded with appropriate remarks.

From the standpoint of fraternal feeling and good fellowship this was a fine meeting.

On February 3, 1921, Mrs. Brainerd invited the friends of the doctor to help him celebrate his 40 years in the practice of medicine.

Strictly speaking, this was not a Society meeting, so the Secretary has no record of it, but we all know Mrs. Brainerd's ability in the banquet line, sufficient to say this was one of

her best. After the banquet, Dr. S. E. Gardine racted as toastmaster. Toasts were responded to by the following, F. J. Graham and J. N. Day.

On behalf of the doctor's professional friends, Dr. R. B. Smith presented Dr. Brainerd with an engraved gold watch.

We have already mentioned that Dr. Brainerd was the first Secretary of the Society from 1887 until 1907, and no history of this Society is complete, without saying he was always active, could always discuss a paper, frequently read papers, or presented a clinical case. When we met in the afternoons his hospital was always open for our meetings.

It is to be regretted that advancing years, and our plan of evening meetings has made it so we rarely see the doctor at a meeting now.

KOCH "CANCER METHODS"

Last month we published the findings to date on the so-called Koch Cancer Cure. A sheet issued by this outfit attempts to make a come-back at the A.M.A. for revealing their methods. As usual the attempt is characteristic of all such replies and resorts to quackish arguments and retorts. Because there are some who are being mislead we again draw attention to unfounded statements and untoward results. It is a shame, far beyond our power of expression, for individuals to secure money by preying on the unfortunate victims of cancer. The appended communications reveal anew these nefarious methods:

Michigan,
May 20, 1926.

Dear Doctor Darling:—

I am writing you a letter in regard to my daughter, who took the Koch cancer treatment. I want to explain to you as near as I can in a letter about what an awful time it was, and if my letter can ever be of any use for a testimony against Dr. Koch or will prevent any other poor person from falling victim to such a fate as ours was, I will be pleased.

Our little girl was only 18 years old. She died in March, 1926, and in November, 1924, she underwent an operation at the Grace Hospital in Detroit. She was only 16 years old then. Her operation consisted of the removal of a large tumor weighing 6 pounds. A laboratory test showed it to be a carcinoma. She got better for a few months and then it all came back again. She suffered awful.

We had her to ever so many doctors in Detroit, Port Huron, Ann Arbor and all our home town doctors had seen her and they all said the same thing and that it was a perfectly hopeless case. She was at the University Hospital at Ann Arbor and took X-ray treatments but she kept getting worse all the time and no one but God knows how she suffered. She had one tumor in the abdomen as large as a teakettle, so one doctor said, and one large one on her neck about like a cup. One doctor said that she was full of them in her stomach and all over and that there was not any thing that could be done for her. Of course we were about crazy to have to give her up. When she had grown up to the age where she was so much company to us, she would take to her bed for a week or two and then get up again for a few days at a time. She kept losing weight all the time, was 6 feet tall and only weighed 85 pounds the last time that she was weighed. At the last she was in bed six weeks.

I wrote to Dr. Koch and explained to him just how she was and he answered and sent us a book stating what great cures had been made by taking his treatment and referred us to Dr. —— at Port Huron. So we went to see Dr. —— and told him just how bad she was and showed him letters of reports that we had from the Hospitals in Detroit and Ann Arbor. He wanted us to come home and put her on a diet for a week and then he would come and give her the treatment. But we did not want to do that without him seeing her first for we knew just how bad she was. So then he came up to Almont the very next day to see her and we had to pay him $50.00 for coming and after seeing her, he said that if it was his daughter or his wife or himself, that he would give the treatment. So that made us feel much better.

He put her on a diet of apple juice and nothing else for a week and I never can explain to you or anyone else how she suffered for something to eat. It broke our hearts and we never, never can forget it. She says, "Mamma, if you don't give me something to eat, I will go crazy" and that she was going to die and that we would be sorry, for that we would know that she died hungry and we are so sorry that it all happened the way it did. It made the whole community of Almont sad to think that it was such a young life and she was a nice girl and then to have to suffer the way she did.

Dr. —— came in one week after she was put on the diet and gave the treatment. We told him when he first came in the house that we thought that she was dying. She had all death symptoms and was so weak and tired that she could not hold her head up and would keep saying to us that she was so tired that she could not live. But he gave the treatment just the same and we gave him $325.00.

I said, "Dr. ——, if our little girl does not get well, we have lost her and our home too, for we had to put the second mortgage on our home to get this money for you."

He said that he could not come down any on the price so he took the money. We have always worked hard and have been honest people. We had our home and were happy before this bad luck came to us. We have the sympathy of the whole community around Almont.

Our little girl only lived two days after the treatment was given. We told Dr. —— that she was dead and thought that he would give us back part of the money so that we could have something to pay the funeral expenses but he would not.

We do not know what way to turn. It took so much for her operation and she was sick over a year and then this last came and took all that we have and we can never be happy again. The hardest part of it all was to give up our little girl and if Dr. Koch's treatment for cancer is a fake, which all the doctors around here say that it is and they say that the world knows it is, I would like to know that no one else would be beat out of their hard-earned money like we were.

Doctors in Almont and Capac saw her while she was in bed and they say that they knew that she was a dying girl and that Dr. —— must have known it too. If he did and would do such a cruel deed, I feel that there is one greater than us all that will judge him and I would sooner be in our place without a home than to be in his and know that I would have to answer for it all sooner or later.

It was Dr. —— of A. who asked us to write to you. I would like to know if you receive this letter.

Mrs. Tom Lashaw.

June 2, 1926.

Secretary Editor, Michigan State Medical Society,
Powers Theatre Building,
Grand Rapids, Michigan.

I am afraid that Mrs. Lashaw stands a very poor chance of getting her $375 back.

Can you not print her letter in the State Journal? To me it is one of the most compelling stories I have ever read and I believe its wide circulation will do more to put a crimp in the abominable business of the Koch outfit than all of the scientific material we can publish in a year.

Cordially yours,

Arthur J. Cramp.

June 6, 1926.

Dear Doctor:—

In reply to your letter of the 29th, I wish to relate the facts to you as I see them. On March 10th, 1926, Mr. Thomas Lashaw of Almont, Michigan, came into my office on behalf of his daughter who had been operated upon some time previous for cancerous growth of the right lower abdominal region, and who had also taken a number of serum treatments for this condition from a late member of our Society, two or three injections being given each week for some time.

Mr. Lashaw asked me about giving the serum treatment of the Dr. W. Koch. I informed him in the presence of his son that I was not well acquainted with the treatment, but told him what I had learned from people who had taken the serum, but that I would in no way be responsible as to the results. Also that I would not consider giving her the serum or the expense which would be incurred without seeing his daughter.

He requested that I come to his residence, which I did on March 11th, 1926, and examined the girl. I explained to the family the condition as I saw it and said I would take no responsibility as they had been trying all known means of getting their daughter cured, but if they wished to jump at the last straw by using this serum, I would obtain it and that the fee would be $300.00 for the serum treatment only, exclusive of my fee for making the two trips of 44 miles each way for which I charged $75.00.

On March 18th I received the serum and treated her on that date.

On the 17th of March Mrs. Lashaw called me by Long Distance Phone and said to come without fail as soon as the serum arrived.

I hardly see why they complain now as they understood all the conditions and results which might be expected before authorizing me to obtain the serum.

I was not aware that a mortgage had been placed on their home as they claim until some days after their daughter died.

I would like to state at this time that I am in no way connected with Dr. Koch or his organization, and that the results received through the treatment of a couple of patients has convinced me that this serum is of no value for the cure of cancer.

I wish this letter to be of a personal matter between you, Dr. Darling, and myself and is not for publication.

Hoping this will be satisfactory to you, I remain

Fraternally,

——, M. D.

FEDERALIZED MEDICAL TREATMENT VERSUS THE PRIVATE PRACTITIONER

By the Veterans' Act of 1924, Congres authorized hospitalization of veterans at government expense, without regard to the nature of the disability. This treatment of disease at government expense was made available to all veterans in certain classes, without reference to the ability of the individual to provide treatment at his own expense or his right to obtain it from the state or city in which he lived. The Journal[1] called attention a few months ago to efforts at extension of the scope of this federal aid. May 17, the House of Representatives passed a bill[2] extending such government attentions to cover outpatient treatment as well as hospitalization, and enlarging the term "veterans" to include women who served as army nurses under contracts between April 21, 1898, and February 2, 1901, contract surgeons and contract dentists. This bill is now pending in the Senate.

The government cannot be niggardly in the reward it gives for military service, but treatment and hospitalization for disabilities not incurred in the line of duty cannot be regarded as a recompense for such service. As they have no logical relation to the military or quasimilitary status of the beneficiary and are not proportioned to the military service rendered, they can be regarded only as gratuities. How long before the same reasoning that has provided these nonmilitary bounties may be expected to provide similar arrangements for governmental civilian employes? And if later the families of beneficiaries already on the rolls are placed among the elect, the step will not have gone much farther.

State medicine in this obnoxious form is with us, and is tending to grow under the patronage of the federal government. Physicians and private hospitals even now must compete with the federal government for the practice of those whose disabilities have not originated in government service and who are abundantly able to pay for treatment. If the bill passed by the House of Representatives becomes a law, the private practitioner and the private hospital will have to compete with the government, not only in providing hospital treatment for veterans, but in providing both hospital and outpatient treatment for veterans, contract surgeons, contract dentists and contract nurses. How long such unfair competition will continue is uncertain. But unless the present movement is checked, the outcome is sure: a greater and greater encroachment on

1. The Trend of Veterans' Relief Legislation: State Medicine editorial, J. A. M. A. 86:278 (Jan. 23) 1926.
2. H. R. 12175, A Bill to Amend the World War Veterans' Act, 1924.

the rights of the individual patient and physician.

The House of Delegates has three times passed resolutions voicing its opposition to this type of state medicine. Resolutions, however, accomplish nothing unless backed up by action. That action must come from the rank and file of the physicians throughout the country, who must make known their views to their senators and representatives in Congress. Action must be prompt if the extension of free federal medical service is to be checked.

June 17, 1926.

Grand Rapids, Mich.

Michigan State Medical Society,

The Senate Committee on Finance, on June 9, reported H. R. 12175, An Act to Amend the World War Veterans' Act, 1924. The bill as submitted to the Committee contained amendments to the World War Veterans' Act, 1924, inserted by the House of Representatives, authorizing *outpatient* treatment (hospitalization is already authorized) at Government expense, regardless of the nature or origin of disability, to all veterans, and authorizing both outpatient treatment and hospitalization, regardless of the nature or origin of disability, for those women who served as army nurses under contracts between April 1, 1898 and February 2, 1901, and for contract surgeons and for contract dentists. The Senate Committee recommended that the amendment extending free outpatient treatment to veterans be stricken out and that the amendment authorizing hospitalization and outpatient treatment for contract surgeons and contract dentists be omitted. The Committee leaves in the bill the provision for extending hospitalization to the nurses named.

Although the recommendations of the Committee do not go as far as the American Medical Association asked, yet they do tend to arrest the extension of free medical treatment at Government expense, regardless of the nature or origin of disability. It seems opportune, therefore, to telegraph and write your senators and representatives again urging opposition to any extension whatsoever of such Government gratuities. Such letters and telegrams will help to hold the ground conceded by the Senate Committee on Finance in its report, even if it does not do more.

A copy of this letter is being sent to the President of your association.

Yours truly,

Wm. C. Woodward,
Executive Secretary,
Bureau of Legal Medicine and Legislation.

Editorial Comments

We desire attention to the Editorial on the Sheppard-Towner propaganda. It is only by registering your protest to your Senators and Congressmen that this undesired legislation can be curtailed. Failure to act on your part will defeat the efforts of your representatives of the A. M. A. to do away with this type of legislation. Act now.

Currettement of the uterus is indicated solely for determination of malignant involvement of the fundus. It is taboo in the so-called inflammatory disturbances, cervicitis and menstrual disturbances. We have commented upon this procedure from time to time. Reports coming from hospitals indicate that curretage is still an overdone and abused procedure evidencing that there are still those who employ it unnecessarily.

Christian Science, that is far from Christian as defined by theologians, continues to delude individuals. Its so-called "healers" or "practitioners" by their methods that are far apart from science and the scientific are causative factors in hastening death or condemning to permanent disability and suffering those whom they are able to induce to employ them. As the people become educated in health laws of right living, the factors that actually cause disease and how disease may be prevented, this "Christian Science" imposition will cease to exist as one of our great American fallacies. If these "healers" would but ascertain the common laws of physiology and physiologic function possibly some of them might desist. What interesting factors would be revealed could they but be psycho-analyzed.

"Come over and help us." That is the cry the Bible reports was made some two thousand years ago in Macedonia. We don't know what sort of help was wanted; that isn't the subject of this comment. We are, however, sending out the same call for help on behalf of our County Societies. There are some who need the help of their sister and neighboring counties. They are calling upon their stronger, larger sister Societies to help them in their work. We join in their call and urge that County Society officers extend themselves in supplying speakers and programs for their meetings. Push on in going to these Counties and putting over some real, practical meetings.

"SAY IT WITH BRAKES AND SAVE THE FLOWERS"

"Say it with brakes and save the flowers,"
A pretty good hunch for this world of ours,
Where every one whizzes and rushes by
With a sneerful snort and a raucous cry,
Where no one's supposed to be doing well
Unless he is riding for leather'n' hell—
Step on the gas, boys . . . into the grave,
Think of the flowers a feller could save!
"Say it with brakes and save the flowers"—
Good for the peoples, good for the powers;
Good for the man in the buzzing bus;
Good for the birds on the curb who cuss;
It's good for you and it's good for me,
One smack of a crack of a fine idee
For this speed-mad crazy old world of ours:
"Say it with brakes and save the flowers."

—J. P. McAvoy.

Your Council is planning a three-day Post-Graduate Clinic at the University Hospital during the latter part of October or the first of November. It will be three days filled with hourly demonstrations and presentations of Clinical cases for the general practitioner. There will be two evening sessions and a football game on Saturday afternoon. This course will be free to "members only" of our State Society who enroll for the course. Detailed announcements will be forthcoming in subsequent issues of The Journal.

There is an Association of State Medical Examining Boards. There is a reciprocity relationship between a goodly number of these boards whereby license to practice may be obtained by endorsement. There is a National Examining Board without jurisdiction and whose certificate has no legal value. The licensing of a physician to practice is held to be one of the police rights of states. It is so in a measure. However, the majority of State Boards are painfully

inactive in exercising police power when it comes to prosecuting illegal practitioners. The whole question of licensing, State Board powers and activity and enforcement of medical practice laws is of sufficient importance to demand studied consideration and the adoption of a present-day program of concerted effort. We suggest that the Federation initiate such a study and lay the foundation for a nation-wide plan of rules and procedure.

Manuals on Periodic Physical Examination are being distributed through our County Societies. Each member is entitled to a copy. Have you received yours? We are interested in learning whether these manuals have been of assistance to you and caused you to appreciate more fully what a periodic physical examination entails. Your conclusions are solicited.

The August Journal will contain the program for our Annual Meeting in Lansing, September 14, 15 and 16. We urge now that you attend this meeting, which is going to be radically different from any that have ever been held in the past.

With its May issue, the American Journal of Surgery imparts the announcement that it has been taken over by Paul B. Hoeber, Inc., Medical book publishers and a new broadened editorial policy developed. Dr. Wm. M. Brickner will continue as editor. Some twenty recognized surgeons have consented to serve on the editorial board, among whom we note Blake, Cushing, Coley, Jonas, Matas and Case. It is purposed to cause each issue to reflect the highest and best in American Surgery; to combine theory, research and practice and also to cover the field of industrial surgery and physical therapy. Its advertising pages will conform to the A. M. A. standard.

There is need for such a surgical journal. We welcome it and urge our readers to subscribe support in the form of subscriptions. Send your two dollars to American Journal of Surgery, 67 E. 59th St., New York for a year's subscription. You will receive a helpful journal.

One-fourth of the school children of Michigan have been protected from diphtheria since January, 1925, according to a report just issued by the Michigan Department of Health. Figures show that enough toxin-antitoxin has been sent out from the Department laboratory from January, 1925, to June, 1926, to immunize 188,979 persons. This is approximately one-fourth of the estimated population of the state between the ages of five and fifteen.

"Judging from the constantly increasing requests coming in to our offices for information and for toxin-antitoxin, this is just the beginning," says Dr. R. M. Olin, State Commissioner of Health, in commenting on the report. "As more parents realize that toxin-antitoxin actually prevents diphtheria, that it is furnished free by the state, and that its administration is a harmless procedure that their family doctor is ready to carry out, the percentage of protected children will increase."

The child of pre-school age is receiving the greatest emphasis in diphtheria protection campaigns throughout the state, reports to the State Department indicate. More than 80 per cent of the deaths occur in this age group.

No harmful effects of toxin-antitoxin have been reported in the nearly 200,000 persons treated. This is due, health authorities state, to the very mild toxin-antitoxin preparation now in use.

The A. M. A. supplies auto emblems for physicians who are members of County Societies. These emblems are of a new patterns and numbered. They are copyrighted and supplanted the old emblem because cultists were using them. Emblems may be secured by writing to the A. M. A. but before making application be sure your dues are paid. If you have an old style emblem on your car we recommend that you remove it ere you find a cultist driving up alongside of you with a pattern of the old emblem on his car.

New York has set 1930 as the goal for eradication of diphtheria. All agencies are joining in the movement and urging toxin-antitorin.

During the month of June, every physician in the state should have received a directory information card. Every one is urged to fill out and return the stamped card regardless as to whether he or she has changed their residence or office address.

This information will be used in compiling the Tenth Edition of the American Medical Directory, now under revision in the Biological Department of the Association. The directory is one of the altruistic efforts of the Association and is published in the interest of the medical profession which means ultimately in the interest of the public. It is a book of dependable data concerning the physicians and hospitals in the United States and Canada.

It is a pleasing sign to note the increasing number of doctors who are becoming interested in golf. With this interest there is an increasing getting together for a foursome or a tournament. Good fellowship is engendered. Here and there we find a "star," but on the whole our averages are about the same—85 to 110. This leads us up to a suggestion for a state golf tournament for doctors. Some of you enthusiasts get busy and put it over. The Journal will supply one of the prize cups.

Cut out the bunk. The day of hocum is past. We just encountered a patient who in stating her past history imparted: "That once she had a congestive chill and that she called Dr. B—, who was operating, but left his patient in the middle of the operation and came to her and gave her a hypodermic. Dr. B— said if he hadn't come when he did she'd die. The doctor then went back to the hospital and completed his operation." Rot, sure we know it, yet doctors there are who hand patients this bunk. The Publication Committee is considering publishing right names of doctors who hand out such bunk to people.

When candidates for state offices line up with cultists and seek their votes with promises of legislative recognition it's time to assert ourselves. To that end we urge that you canvass your community and help select men who when elected serve on merit and not on campaign pledges.

Remember the dates—September 14, 15, 16—of our annual meeting in Lansing. A splendid program is rounding into shape. Make your hotel reservations now.

Twice during the past week requests have come in for a list of County Secretaries. For twenty years a roster of County Officers has been published in each issue of The Journal. We wonder how well our members read The Journal?

Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

Editor of The Journal:

Kindly publish the following advance notice of our meeting in the next issue of your Journal. Thank you.

"Anesthetists Meet.

"The annual meeting of the Mid-Western Association of Anesthetists will be held in Kansas City, Mo., October 11-14, 1926 at the same time as the Clinic Week there. Headquarters, Baltimore Hotel.

"An interesting and attractive program is in the process of making. Any physician or dentist desiring to read a paper should send the title of his paper to the Secretary very soon.

"Ralph M. Waters, M. D., Secretary-Treasurer, 425 Argyle Bldg., Kansas City. Mo.

"Fraternally yours,
"Frances E. Haines."

Editor of The Journal:

Inasmuch as the Wayne County Medical Society is on summer vacation during July and August, there will be very little, if any, news to report. I shall, however, make an effort to pick up whatever may be of interest and send it along to you.

Permit me, at this time, to compliment you on the excellence of the Journal which you are turning out and to extend to you my best wishes for your continued success as its Editor.

Fraternally,
W. S. Reveno.

Editor of The Journal:

Enclosed we are sending you a copy of the amendment to our Medical Practice Act which the legislature enacted this year. You probably are aware of the fact that we have struggled for more than a dozen years to secure this amendment. Primarily it provides a method for enforcing existing statute. This is to be accomplished through the following procedures:

Annual registration of all physicians by the Board of Regents; limitation of the practice of medicine and the use of the title "doctor" to those licensed by the Board of Medical Examiners; prosecution of all violators of the law by the Board of Medical Examinners with the assistance of the attorney general instead of the county, district attorney, except in two or three of the largest counties; prosecution to be brought in courts of special session where such exist, and the Board of Medical examiners to employ inspectors to investigate charges of violation of the law and collect evidence for the attorney general.

Provision for the formation of a Committee on Grievances is new, we believe, so far as medical societies are concerned. The idea was suggested by the admirable success of a similar institution in the Bar Association.

Thanking you for the co-operation we have had in the past from your State Medical Society and trusting that if we can be of any assistance in the future you will call upon us, I am

Very truly yours,
Henry L. K. Shaw,
Chairman Committee on Legislation.

Editor of The Journal:

It may interest you and other members of the Michigan State Medical Society to know that Representative Clarence J. McLeod of the Thirteenth District of your State introduced H. R. 9055, a bill to regulate the practice of chiropractic; to create a board of chiropractic examiners in the District of Columbia, and to punish persons violating the provisions thereof. This bill has just passed the House of Representatives, and an effort is being made to defeat it in the Senate. Representative McLeod not only introduced this bill, but was a member of the Committee on the District of Columbia that reported it favoribly.

You need not trouble yourself to reply to or even acknowledge this letter.

Yours truly,
Wm. C. Woodward, Executive Secretary,
Bureau of Legal Medicine and Legislation.

Editor of The Journal:

I want to express to the State Medical Society my appreciation of the fact, first, that they undertook my defense in the suit brought against me by Dr. Mercer, and secondly, for the able manner in which the case was handled.

The splendid support o fthe local Calhoun County Society, and the State Society, was most gratifying and helped me through the trial of the only litigation ever brought against me.

Sincerely yours,
Dr. E. Van Camp.

State News Notes

The Detroit Dermatological Society held its annual clinical meeting on Tuesday, May 25, 1926, at Harper Hospital.

At the regular meeting on May 11, Dr. F. M. Meader was elected Chairman, and Dr. R. L. Novy Secretary of the Medical Section.

The officers elected for the ensuing year are; President, L. T. Henderson; Vice President, C. J. Marinus; Secretary, D. L. Van Duzen; Treasurer, J. R. Bolasny.

Dr. F. M. Meader, Medical Director of the Detroit Board of Health, read a most interesting paper on "Sunlight as a Disinfectant" at the meeting of May 11th.

On May 18, Dr. M. A. Mortensen of the Battle Creek Sanitarium spoke on "Cardiovascular Problems" before a large group of members of Wayne County.

The Commencement Exercises of the Detroit College of Medicine and Surgery were held at the College of the City of Detroit at 8:30 o'clock on the evening of Thursday, June 17th, 1926.

The West Side Physicians' Association met at the Memorial Hospital May 27. The meeting was addressed by Dr. R. E. Loucks on the subject of "Gynecological Indications for Radium Therapy."

The East Side Physicians' Association held its last meeting of he year at the Jefferson Clinic, May

20th. Dr. Robb read a very interesting paper on "Acute Ear and Its Complications."

The last meeting of the year was held May 25th. Dr. David N. Eisendrath, of Chicago, delivered a most illuminating talk on "The Significance of Blood in the Urine," and Dr. C. F. McClintic, of this city, spoke on "Clinical Neurology of the Urinary Bladder."

The United States Veterans' Bureau Medical Society of Michigan was addressed by Fred H. Cole, M. D., on the subject of "Infections of the Kidney" on May 27th, at the Wayne County Medical Society building.

Doctors F. D. Robertson and R. W. Webb, of Grand Rapids, sponsored a golf match for local doctors the first Thursday in June. Some 38 local aspirants contended for the 12 prizes offered. Possibly one or two local foresomes might accept challenges from other "Hagenites" or "Jones" if handicaps are adjusted.

The two nominees for President, Doctors J. H. Dempster and R. E. Loucks each received the same number of votes, so that the choice of the new president was left to the Council of the Society. Dr. J. H. Dempster was elected President for the coming year. Other officers are: Vice President, M. A. Darling; Secretary, Richard M. McKean.

At the last meeting of the Detroit Oto-Laryngologica Society the following officers were elected for the coming year.

President, Frank L. Ryerson, M. D.; Vice President, Emil Amberg, M. D., F. A. C. S.; Secretary-Treasurer, Wm. Fowler, M. D.

The Scientific Session was given over to the study of the nerve pathways to and from the organs we are most interested in, with F. C. McClintic, M. D., as instructor. Dr. McClintic illustrated his talk with prepared specimens and lantern slides, showing especially the anatomical connections necessary to give the physiological results.

To encourage investigations of alimentary tract function, Dr. Frank Smithies, Chicago, has presented to the School of Medicine of the University of Illinois, bonds in amount sufficient to yield annually, in perpetuity, not less than $100.00. This fund is known as "The William Beaumont Memorial Fund" and the income therefrom, as "The Annual Beaumont Memorial Award."

The award is to be made each year to the research or clinical investigator, who, in the judgment of a Faculty Committee, has contributed the most important work during the year, in the field designated.

The first award will be made in 1927. Manuscripts covering investigations do not have to be entered specifically for the award nor is it required that they be submitted to the Faculty Committee. The award is to be granted by the Committee after it has considered carefuly all investigations published during any year in periodicals throughout the United States. Thus, the award is available to workers in any institution, and is not confined to members of either Faculty or Student body of the Univeristy of Illinois.

About 30 members of the Michigan Trudeau Society were the guests of the Ontario Laeenec Society at the Queen Alexandria Sanatorium, London, Ontario, on May 25, 1926. The Laeenec men proved themselves to be genial and generous entertainers. After inspection of this splendid sanatorium and its clinical work the afternoon program was furnished by several of the most eminent specialists of Ontario. Of special interest was the brilliant pathological and X-ray research that is being caried on at this hospital by Dr. Andrews. The evening program was furnished by the Michigan Trudeau Society. Dr. W. H. Marshall, of Flint, presided. Papers were contributed by Doctors H. Rich, of Detroit, J. Bruce Whyte, of Battle Creek, and J. B. Amberson, of Detroit. This meeting was so successful from both the social and scientific standpoint, that the Laennec Society has been invited to a Trudeau meeting to be held in Detroit next year. At the annual business meeting of the Trudeau Society the following officers were elected:

President, Dr. W. Vis, Grand Rapids; Vice President, Dr. E. R. Van der Slice, Lansing; Secretary-Treasurer, Dr. B. Douglas, Northville.

Our Society Business and Activities

HARVEY GEORGE SMITH

EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

POST-GRADUATE CONFERENCES

One hundred and eighty-two doctors answered present at the three Post-Graduate Conferences conducted by the Michigan State Medical Society in May and June.

The Conference at Jackson on May 25th numbered an attendance of eighty, at Fremont on June 2nd, seventy-five, and at Cheboygan, June 9th, twenty-eight.

At each meeting distance travel records were broken, new enthusiasms and satisfactions were expressed for the State Society in making the Programs of the Conferences of material value to the membership. At the Cheboygan Conference 75 per cent of the doctors attending traveled at least one hundred and fifty miles, representing Alpena, Sault Ste. Marie, Newberry and Gaylord. These results are hoped for in every program that is conducted. It would be a disappointment to the Council, the Executive Committee and Officers of the State Society were they not attained.

The speakers who take part on the programs of the Post Graduate Conferences are the bases for their success. They give

unstintingly of time, not less than one day and often two. They serve their fellows by giving the best they have in practical advances in scientific knowledge. They present two half-hour lectures and spend most of their free time before, between and after lectures in personal conferences. To them is due the credit for the expressions of enthusiasm and satisfaction offered by the attending doctors. The following programs were presented:

POST-GRADUATE CONFERENCE
City Club, Jackson, Mich.
Tuesday, May 25, 1926.

10:00—Opening Statements.
B. F. Greene, M. D., Councilor-Chairman.
10:15—"Arthritis."
John B. Youmans, M. D., Ann Arbor.
10:45—"Dseases of the Liver."
Plinn F. Morse, M. D., Ann Arbor.
11:45—"The First Pre-Natal Interview and Examination—Discussion and Moving Pictures."
Alex. M. Campbell, M. D., Grand Rapids.
12:00—Lunch—City Club.
Speaker—Senator Copeland.
1:30—"The Acute Abdomen."
C. G. Darling, M. D., Ann Arbor.
2:00—"The Gastro Intestinal Gradient."
D. M. Cowee, M. D., Ann Arbor.
2:40—"Peptic Ulcer and Medical Management."
John B. Youmans, M. D., Ann Arbor.
3:10—"Blood Vessels and Blood-Vessel Accidents."
Plinn F. Morse, M. D., Ann Arbor.
3:40—Recess.
3:50—"Cesarean Section from the View-Point of the General Practitioner" (Illustrated).
Alex. M. Campbell, M. D., Grand Rapids.
4:20—"Streptococci Infections."
C. G. Darling, M. D., Ann Arbor.
Adjournment.

POST-GRADUATE CONFERRENCE
Congregational Church, Fremont, Mich.
Wednesday, June 2, 1926.
George L. LeFevre, M. D. Councilor-Chairman.

10:00—"Physical Examinations of the Apparently Well—Demonstration."
Burton R. Corbus, M. D., Grand Rapids.
11:00—"Pre-Natal Care."
R. S. Cron, M. D., Milwaukee.
11:30—"Myocarditis."
William J. Eagan, M. D., Milwaukee.
12:15—Lunch—Informal talks.
2:00—"Neurological Manifestations in Pernicious Anemia."
John L. Garvey, M. D., Ann Arbor.
2:30—"The Acute Abdomen."
Frederick C. Warnshuis, M. D., Grand Rapids.
3:00—"Gastric Ulcer, Medical Management."
Burton R. Corbus, M. D., Grand Rapids.
3:30—"Disease of the Cervic."
R. S. Cron, M. D., Milwaukee.
4:00—Recess.
4:10—"Hypertension."
William J. Eagan, M. D., Milwaukee.
4:40—"Epilepsy."
John L. Garvey, M. D., Ann Arbor.
5:10—"Head Injuries."
Frederick C. Warnshuis, M. D., Grand Rapids.
Adjournment.

POST-GRADUATE CONFERENCE
Elks Temple, Cheboygan, Mich.
Wednesday, June 9.
B. H. Van Leuven, Councilor-Chairman.

12:00—Luncheon—Informal talks.
2:00—"Gastric Ulcer, Medical Management."
Burton R. Corbus, M. D., Grand Rapids.
2:30—"The General Practitioner's Relationship to Diseases of Genito-Urinary Tract."
Carl Eberbach, M. D., Ann Arbor.
3:00—"Some Practical Points in the Handling of Acute and Chronic Nephritis."
George E. McKean, M. D., Detroit.
3:30—Recess.
3:40—"Diabetes."
Burton R. Corbus, M. D., Grand Rapids.
4:10—"Acute Infections of Genito-Urinary Tract."
4:40—"Pneumonia."
Carl Eberbach, M. D., Ann Arbor.
George E. McKean, Detroit.
8:00—Public Meeting Under Auspices of the Parent-Teachers Association, Women's Club and State Medical Society."
Burton R. Corbus, M. D.
George E. McKean, M. D.

PICNICS

The social and fun sides of the doctors life are to be well cared for during this month if all reports are well grounded. Picnics, chicken dinners, beefsteak roasts by the flowing brooks and peaceful lakes of Michigan are part of the activities, probably the most important. There are other factors of interest that challenge the sporting blood of any one. Baseball, golf, bridge, challenges of one Society by another, one profession by another, ministers by doctors, doctors by lawyers, say nothing about the money that is up on either side or who must buy the dinner, are included. Fun is the password for all. Should any one use a medical term in its proper scientific atmosphere he will be fined and may be sent back to practice as punishment. With most of the members of the County Societies an entire year has passed since one fellow practitioner has saluted his fellow by any other term than that of doctor. Here comes the occasion when all the doctors' titles are deleted and in their place come those that are real; John, Jack, George, Frank and all the others.

We are alarmed over what may happen between the Washtenaw and Jackson County Medical Society members. The following letter is printed for the benefit of the membership throughout the state. All cannot be there, but all can do likewise:

To Arms! To Arms! To Arms!
Members of the Washtenaw County Medical Society!!!!!

The honor of our Medical Society on the field of combat is at stake. The Jackson County Medical Society, having heard of our annual open air meeting, have flung a

challenge, a whole handful of challenges, at us—golf, horse-shoes, baseball, bridge, and what not. We have taken up this challenge and the rendezvous is the Sylvan Estates Golf Club, between Chelsea and Grass Lake, Thursday afternoon, June the 24th.

These Jackson men are about the cockiest bunch your committee has ever met and they need taking down. The golf tournament starts at 1 p. m., the first foursome teeing off at that time and others as rapidly as possible. Eighteen holes, rules are A. D. Wickett's modification of the Marquis of Queensbury's rules,—honesty first, total each Society's scores, take the average, and the low average wins with the low score of the winning side being the man to keep the cup until next year. The cup is now in the jeweler's being engraved. Ties will be played off.

Their baseball team has won world renown and they have their own umpire, guaranteed to be so crooked that when he dies they'll have to screw him into the ground. Their ancient mariners heave a wicked horseshoe and something has been mentioned in a nasty way about teaching us how to bid a bridge hand. That contest will be for the evening.

Tickets will be sold within the next week or so at $1.50 per and only those whose 1926 dues are paid will be allowed to qualify for the golf tournament. Your ticket must be stamped "Dues Paid" for your entry.

Golf at 1 p. m., baseball at 5 p. m., swim to cool off (if it ever gets hot), and dinner at 6:30 sharp. Lemonade barrels all along the golf course. Smokes. Quoits all afternoon. Cards after dinner. Strictly stag party. No medical words allowed on the grounds.

Take M-17 to Sylvan Center and watch the red arrows with white crosses for right turn from the pavement and then on to the inn.

Be there!

P.S.—The lemonade barrel will be at the ninth green; if someone leaves a brassie or some other stick in it, that is not our fault.

—For the Committee by a former Washtenaw member now serving in Jackson.

Suggestions very welcome. Call A. D. Wickett, Warren Forsythe or the Secretary.

"BUNK" OR ACCOMPLISHMENT

Someone said that the County Medical Society is another way of saying "Bunk". To that person it was only necessary to present the last two copies of The Journal opened to Society News. The sceptic there found the reports of twenty-five Secretaries who had recorded the activities of the membership of their respective County Societies. The records include the Scientific meetings, Publicity, Periodic Health Examinations, special meetings for the public on Health Education, and social functions for the membership, a total of 100 activities.

There may be other sceptics in the ranks of the membership of the Michigan State Medical Society who feel that they pay their dues and get little in return. They may feel that they would rather not pay. "I can keep abreast of the advances in Scientific Medicine by going to Chicago or Detroit, Cleveland or the University," say some of them. Let all those who have doubts turn to the above pages of the last two Journals and read the complete reports of the Societies as written by the scribes. It would seem that the knowledge of the work that is being done by County Societies throughout the state would make one feel proud of his fellows, his neighbor Societies, perhaps his own Society, in their accomplishments; proud of his own profession and its accomplishments in the field of science, fellowship for fellow members, civic responsibilities for the community recorded in educational ectivity and publicity. Before we pronounce judgment upon County Medical Societies and members of our own profession in our own state let us turn to the columns of The Journal and there peruse the various departments. The verdict then will be —The County Society is the base upon which the Profession of Medicine stands in practice and in the advancement of Scientific Medicine. The County Society is then not synonymous with "Bunk" but with "Accomplishment."

COUNTY MEDICAL SOCIETY MEMBERSHIP AXIOMS

1. Be a Member of a County Medical Society. Pay dues yearly and promptly.
2. Serve the Society by supporting the officers and working on Committees.
3. Be a positive member, not negative; constructive, not destructive.
4. Attend County Medical Society Meetings with regularity.
5. Inform laymen in the fundamentals of Scientific Medicine and how to use them intelligently.
6. Have a complete physical examination on your birthday. Educate patients in the value of them for health.
7. Attend Post-Graduate Conferences.
8. Individually advance Scientific Medicine.
9. Serve your community in civic affairs.
10. Be friendly and helpful to fellow practitioners.

County Society News

ALPENA COUNTY

The regular meeting of the Alpena Medical Society was held at Greenbush Inn, Alcona County, Thursday, 20th, 1926. On this occasion the Bay County Medical Society had charge of the program. Twenty-eight members of the Bay County Medical Society with the sixteen members of our Alpena Medical Society, were the guests of Doctors Miller and Lister at a splendid dinner served at 6 o'clock. Following the dinner Dr. R. A. Miller, acting as Chairman for our local Society introduced the speakers of the evening. Dr. Sherman, Bay City, gave an interesting discussion of the effect of local inflammations of the nose as the cause of eye disease. Dr. Allen of Bay City, read a most thoroughly prepared paper on "Paresis." Dr. Hess of Bay City, gave some of the new information regarding diabetes. All of these papers were discussed with interest by the members present. Dr. R. W. Wood of Fairview, who has frequently written for the vairous medical journals under the caption (From the Jack-Pines), gave a most interesting discussion of the steady advancement of state medicine. He described with some enthusiasm the arduous duties performed by the various surveys sent out by the State Board of Health, amongst which fishing and automobile riding were important.

This was the second of meetings in which the program has been given before our Society by the Bay County Medical Society. These meetings are breaking down the barriers between the members of the different Medical Societies like the meetings of the local Society create harmony among the local members.

The Alpena County Medical Society were the guests of the Chippewa-Mackinac Society at Sault Ste Marie, Tuesday, May 25, 1926. Seven members of our local Society with their wives, enjoyed their hospitality. The following program was given at the Country Club at 4:00 p. m.

Dr. John Purdy, Long Rapids: "Examination of the Chest."

Dr. F. J. O'Donnell, Alpena: "The Acute Abdomen."

Dr. W. B. Newton, Alpena: "Focal Infections and Their Relation to Diseases of the Eye, With Report of Cases."

Following the program the visiting physicians and families were the guests of the Chippewa Society at a dinner at the Country Club.

The evening meeting was held before the Parent-Teacher's Association in the Auditorium of the High School, at which Dr. C. M. Williams spoke on the "Health of the School Child" and Rev. Julian West on the "Moral Health of the Child." The Parent-Teacher's Association at the Soo did not appear to be interested in the subjects and aside from the doctors and their wives present not over a dozen were present. Apparently the Soo people feel that their local physicians have entire mastery of the health conditions of their town.

C. M. Williams, Secretary.

BARRY COUNTY

Our May meeting was a laymen meeting and a very interesting one indeed. The members were almost 100 per cent present. Each one brought his wife along and they served us a delightful pot-luck 6 o'clock dinner.

The speakers of the evening were Superintendent Van Buskirk of our city schools and Dean Eugene Davenport, (Dean and Professor Emeritis, of the College of Agriculture of University of Illinois), now of Woodland, Mich.

Superintendent Van Buskirk gave us a very interesting talk on the relationship of the profession to the schools. A very interesting discussion was brought about from the fact that some members of the profession have been rather lenient in writing excuses eliminating students from physical educational work which were not always warranted from the student's physical condition.

Dean Davenport's talk struck a key note to the layman's attitude toward the ethics of the profession. I asked him for an abstract of his address which follows:

"The medical profession is to be congratulated upon the progress of the times.

"The greatly improved courses in our medical colleges, the development of science and the greater diffusion of knowledge among the people are doing much to rid the treatment of diseases from its former mystery. To reduce the use of patent medicine and to make the pretensions of the quack more difficult.

"Medical practice had its origin in the medicine man of its tribe. The only one who dared to dispute the word or the authority of the "Old Man," the self-appointed oracle.

"Mystery was the long suit of the medicine man, and mystery was continued. Latin language used in the early schools, and its old tradition that education was to produce a separate and a privileged class.

"It was all bound to the mystery presented by the ethics of the profession which forbade any but the "learned" discusion about disease and a guarded attitude toward the laity.

"Now many laymen know as much about the nature of most diseases and about the functions of the normal body as most physicians and medical men of highest repute in writing in layman's language about matters of health.

"The clinical terms belong to the laboratory, and if a man these days is really educated he can express the most abstract scientific principles in the language of the street. Indeed, our best scientists seldom use the technical terms except before a restricted audience of technicians.

"All this achieves much for rational living and for the reduction of quackery."

BERRIEN COUNTY

The May meeting of the Berrien County Medical Society will be held at the Community House in Niles, Michigan on Wednesday, May 19th.

The program was as follows:

Dinner—6:30 p. m.

Medical Meeting—7:30 p. m.

Dr. Wm. M. LeFevre, Muskegon, Mich., spoke on "Surgical Emergencies of Diabetes."

Dr. George L. LeFevre, Muskegon, Mich, spoke on "The Relation and Benefits of the State Medical Society to the County Medical Society."

Dr. George L. LeFevre is the president of the State Board of Medical Registration and one of the counselors of the State Medical Society and very kindly consented to talk upon this most interesting subject.

If there are any questions that you desire to be enlightened, come prepared to ask them.

CALHOUN COUNTY

The Calhoun County Medical Society held its regular monthly meeting, Tuesday, June 1st, at the Battle Creek Country Club, with the Calhoun County Bar Association as our guests.

Following the dinner and a short business session,

Dr. A. L. Jacobi of Detroit spoke before the combined assembly on "A Psychiatrist and the Court." The subject is a timely one and was handled in a very excellent fashion, the speaker describing many cases from his long list of experiences. Following this there was active discussion by many of the doctors and lawyers present.

This is the first occasion in Calhoun County when the doctors and lawyers have held a joint meeting. It was a great success and we hope to make it a regular occasion once a year.

L. E. Verity, Secretary.

CHIPPEWA-LUCE-MACKINAC COUNTY

On May 25th the Chippewa-Luce-Mackinac County Society had as their guests the Alpena County Medical Society, the latter giving the program.

Dr. John Purdy spoke on the "Examination of Suspected Tuberculosis."

Dr. William Newton read a paper on "Focal Infections and Their Relation to Diseases of the Eye."

Dr. O'Donnell read a paper on "Surgical Conditions of the Abdomen."

Each number on the program was very practical and received with a great deal of interest. We are deeply indebted to the Alpena Society for this splendid program.

After the Scientific Meeting dinner was served to physicians and their guests, at the Country Club.

This was followed by a Public Meeting in the High School Auditorium at which Dr. C. M. Williams spoke on "The Health of the School Child," and Rev. Julian West spoke on "The Moral Health of the School Child." Both these men gave splendid addresses.

On the whole this was one of the best meetings ever held in our Society and was attended by practically every physician in the three counties.

F. C. Bandy, Secretary.

EATON COUNTY

The Eaton County Medical Society held its regular monthly meeting Thursday, April 29th, at the Harriet Chapman Hospital, Eaton Rapids, Michigan.

After a short business meeting, Dr. V. Rickard of Charlotte presented in a very fine manner the subject of "Periodic Health Examinations." This was followed by a very helpful general discussion.

Meeting adjourned after deciding to hold the next meeting in Bellevue.

The Eaton County Medical Society held its regular monthly meeting in Bellevue, Thursday evening, May 27th at 8:00 p. m. in the Baptist church parlors. Fifty per cent of our members were present as well as the Baptist minister and the visiting speaking team from Lansing.

After a short business meeting we came at once to the program which was on the "Medical and Surgical Aspects of Goitre" and was presented to the Society by Dr. Leo Christian and Dr. Wm. McNamara of Lansing.

The following points on the goitre problem were emphasized:

1. Only one type of goitre responds to medical treatment. The rest should be treated surgically, or some by surgical and medical treatment combined.
2. Goitre conditions seem to be on the increase.
3. Treatment of goitre by different forms of iodine is being greatly abused by the laymen and dangerous toxic conditions produced thereby.
4. Goitre treatment should always be guarded and supervised by a competent physician.
5. Neglected goitres all produce heart and kidney trouble later in life. High blood pressure is also commonly caused by these long standing goitres, even though small.
6. "Americanitis" or our strenuous present day way of living is undoubtedly a factor in goitre etiology.

H. J. Prall, Secretary.

GRATIOT-ISABELLA-CLARE COUNTY

The June meeting of the G. I. C. was held in Alma City Hall Thursday, June 10th. Neither President Graham or Vice President Kilborn being present, Dr. R. B. Smith was called to the chair.

The Secretary read a short history of the Gratiot and the Gratiot-Isabella-Clare County Medical Society, that he had prepared at the request of State Secretary Warnshuis. Some corrections and additions were suggested after which the history was accepted.

Our out of town speaker was Dr. I. W. Greene of Owosso. Subject: "Clinical Types of Hypothyroidism." This subject proved interesting, those present asking many questions of the doctor after he finished his paper.

E. M. Highfield, Secretary.

ISABELLA COUNTY

The first permanent Medical Society in Isabella County was organized in 1899, previous attempts always miscarrying. The first President was Peter E. Richmond, M. D.; the first Secretary being Sheridan E. Gardiner, M. D. Later Clare County came into this Society, thus forming the Isabella-Clare County Medical Society, the largest membership attained being 21. The office of President changed nearly every year, but the same Secretary served for 15 years, being succeeded by C. M. Baskerville, M. D. The meetings were held quarterly, usually in Mount Pleasant, but sometimes in Shepherd and Clare.

Some very interesting and profitable meetings were held, the papers being usually by members in the Society but sometimes by physicians from some of the larger surrounding cities. This Society did much good in bringing about a friendlier feeling among the members and it also assisted materially in the collection of accounts.

Believing that larger and more frequent meetings would be desirable, in 1915, this Society merged with Gratiot Medical Society, forming the Gratiot-Isabella-Clare County Medical Society, known as the G. I. C. Medical Society.

HILLSDALE COUNTY

The joint meeting of the Medical Societies of the Counties of St. Joseph. Branch and Hillsdale was held at the Country Club, Hillsdale, June 16th at 6:00 p.m., the President, Dr. J. H. Johnson, in the chair.

After a dinner and the reading of the minutes, Dr. Sawyer at the request of the President, introduced the speaker of the evening, Dr. Udo J. Wile of the University of Michigan, who gave a splendid address on "Peculiarities and Treatment of Syphilis." Much of the information given was new and almost revolutionary, especially in his use of the Wassermann and Kahn lists in diagnosis.

Dr. Wile's magnificent address was followed by general discussion, in which he answered a number of questions.

In summing up, he stressed the importance, 1st of early and thorough treatment, 2nd, watching the clinical conditions in old cases and giving treatment accordingly.

After the address, the Society took up the subject of the sad death of Dr. Bell of Reading, and ordered

the Secretary publish the following sketch of his life and work and the appended resolution in The Journal of the State Medical Society, to inscribe them in the records of the County Society and to transmit a copy of the resolution to Dr. Bell's family.

IN MEMORY

Dr. Thomas H. E. Bell was born in Auburn, Huron County, Canada, June 18th, 1874 and died at his home in Reading, Michigan, June 7th, 1926.

He was the son of Joseph and Mary (Hawsen) Bell who were Canadians by birth, the former of English and the latter of Scottish descent. Losing his mother when he was only four years old, he was reared by an uncle, Mr. John Lasham of Londesborough in his native county. He was educated in the public schools of that county, graduating from the Clinton High School in 1892. He then took up the study of medicine and was graduated from the Michigan College of Medicine and Surgery at Detroit in 1897; later, taking a post-graduate course at the New York Polyclinic.

Immediately after his graduation he located for the practice of his profession at Montgomery, Michigan. Here, his skill as a physician and surgeon and his attractive and forceful personality, soon brought him an extensive practice throughout the county and in the adjoining states of Ohio and Indiana.

In 1898 he was married to Miss Anna M. Webb of Staffa, Ontario, who with one son, Kenneth, survive him.

In 1912 the family moved to Reading, Michigan, where he had built a beautiful home.

Dr. Bell served during the world war at the Base Hospital at Chillicothe, Ohio. Entering the service as captain, he was recommended for promotion to the rank of major, but declined that honor, preferring to return home and resume his private practice. His severe and exhausting duties in the service impaired his health and undoubtedly contributed in large measure to his physical breakdown.

Dr. Bell was an active member of the Hillsdale County Medical Society and had served as its President and as Delegate to the State Society, of which he was also a member, as he was of the American Medical Association.

In addition to these professional honors, he served three terms as President of his home town and always worked for its best advancement.

He was a member of the O.E.S., the Odd Fellows, Knights of Pythias, Elks, and was a Knight Templar and a Shriner.

Dr. Bell's devotion to the exacting duties of his high calling, his wide charity and sympathy to rich and poor alike, his honor and fairness, and his cheerful and fenial presence made him universally beloved by those he served and no less so by his colleagues in the medical profession.

His untimely death is a tragedy which has cast a gloom over the entire community and which we mourn and cannot understand. We simply bow to the inevitable.

The death of Dr. T. H. E. Bell has thrown a pall of sorrow and bereavement over the community which he loved and which loved, respected and trusted him, and for which he made the Supreme Sacrifice.

Cut down in the zenith of his strength and usefulness, his place cannot be filled in the hearts of his people. Service before self was his purpose and reality.

To us, his professional brothers, he was a friend and comrade. Careful in his ethical relationship, and tolerant of the mistakes of others, he constantly strove to improve his own work and to contribute to the betterment of all. Interestedly and willingly, he generously gave of his time and of himself to conserve the public health and the welfare of his profession.

His loss to us we cannot appraise. "We shall meet but we shall miss him; There will be one vacant chair."

BE IT RESOLVED, That we extend to his grief stricken family our sympathy in this sad hour of our mutual sorrow.

Committee,
Dr. W. H. Sawyer,
Dr. B. F. Green,
Dr. C. T. Bower.

A message of thanks from Mrs. Bell and her son to the members of the County Medical Society for their sympathy and help during Dr. Bell's illness and after his death was then read after which the Society adjourned.

J. H. Johnson, President,
D. W. Fenton, Sec'y-Treas.

JACKSON COUNTY

The May meeting of the Jackson County Medical Society, held at Foot Hospital, May 18, was addressed by Dr. John B. Jackson, Councillor of the 4th District, who spoke on "Periodic Health Examination."

After a brief review of Preventive Medicine, mentioning Jenner, Pasteur, Koch, and VonBehring, Dr. Jackson mentioned malaria, typhus, yellow fever and bubonic plague as diseases nearly eliminated by Public Health Work. He said the present day effort is to prevent disease in the individual. In the future, the work of the medical man will be preventive. This is to be done by regular examinations of the apparently healthy.

He used the example of the automobile worth a thousand dollars which is regularly inspected overhauled, the owner does not wait until the car is wrecked. Draft Board Examinations showed one-third of the examined men unfit for service due to defective vision, hearing, teeth, rheumatic heart, goitre, and hernia, practically all preventative troubles.

In reviewing the A.M.A. examination blank, Dr. Jackson stressed the following points, personal hygiene such as sleeping, smoking, drinking, eating, exercising and elimination as very important in history taking. Most of us eat too much and exercise too little. Underweight below thirty and overweight above, were stressed as being particularly bad.

Familial tendencies, or so-called inherited diseases, might often be warded off by careful and repeated examinations. Many diseases of later life are due to foci of infection, especially dead teeth, pyorrhea, impacted teeth, and infected tonsils, readily discovered on a physical examination.

Due to inclement weather there were only thirty-four doctors present at the meeting, all of whom had within the past year had a complete physical examination of themselves. A manual on periodic examinations was given to each physician present.

The next meeting will be held June 24 at Sylvan Estate Country Club, Jackson County joining with Washtenaw County.

POST GRADUATE CONFERENCE

On May 25, 1926, the Second District of the Michigan State Medical Society held a Post-Graduate Conference at the City Club in Jackson.

The doctors attending the conference were invited to attend the Civic Luncheon sponsored by the Chamber of Commerce and the luncheon clubs, at which time they were addressed by Royal S. Copeland, M. D., United States Senator from New York. Following the luncheon, Dr. Copeland gave a talk to the conference lauding the profession and its work.

Owing to sickness Dr. D. M. Cowie of Ann Arbor was unable to give his talk on "The Gastro-Intestinal Gradient." Dr. Plinn F. Morse of Detroit, who was to have talked on "Diseases of the Liver" and "Blood

Vessels and Blood Vessel Accidents" was also unavoidably absent.

There were 94 doctors who sent in reservations for luncheon, but only 78 registered in the conference room.

D. Burr Marsh, Secretary

LENAWEE COUNTY

The May meeting was held on Thursday the 27th, at Tecumseh. The Monroe County Medical Society was invited and was represented by a large percentage of their membership.

An excellent chicken dinner was served to over thirty members from the two counties at the Evans restaurant.

The scientific meeting was held upstairs over the restaurant. In the absence of our President, who is abroad, the meeting was called to order by Vice President S. J. Rubley. Regular routine Society business was carried over until next meeting in June and the speaker of the evening, Dr. H. A. Reye of Detroit was introduced. The subject of his talk was, "The Practical Management of the Neursois." Dr. Reye presented his subject in his characteristic vivid and dramatic manner, illustrating clearly with a number of case histories of the various types of neurosis and allied conditions found in everyday practice.

An example of the interest shown by his audience may be given by the remark made by one of those present. After talking for almost an hour, Dr. Reye stopped and asked if he had talked too long. Some one spoke up and said he had only talked 15 minutes and to continue.

Monroe County joins with Lenawee in extending their sincere thanks and appreciation to Dr. Reye for coming out to meet with us.

The next meeting of Lenawee County Medical Society will be on or about June 24th with a picnic at the cottage of Dr. L. J. Stafford.

R. G. B. Marsh, Secretary.

OTTAWA COUNTY

The Ottawa County Medical Society held its regular monthly meeting and luncheon at the Warm Friend Tavern in Holland on May 18th. There were 19 members and 25 guests present. The guests were from Holland's business and professional men. Mr. Wyand Wichers, cashier of the First State Bank, spoke to us on "Mr. M. D., Scientist, Friend and Human."

On June 8th the Society met in regular session with a luncheon at the M. E. Church in Grand Haven. Attorney Chas. E. Wisner, of Grand Haven, addresed the Society on "Crime and Its Cure." Fifteen members were present. The meetings will now be discontinued until September.

A. Van der Velde. Secretary.

Among the Books—Continued

(*Continued from Page* 347)

COLLECTED PAPERS BY THE STAFF OF HENRY FORD HOSPITAL, 1915-1925. Cloth, 665 pages. Price, $8.00. Paul B. Hoeber, Inc., New York.

This publication represents the scientific writings by the members of the staff of this hospital and covers the years of 1915 to 1925. The majority of the papers have appeared in various medical publications.

On careful perusal of the volume the opinion is promptly formed that this is an excellent addition to our medical literature. It will enable the general practitioner as well as the specialist to obtain much that is of practical value as well as scientific value in his daily practice. It is set forth on the practical applications of the principles that are discussed. We recommend this addition to our medical literature and are pleased to learn that it is planned to continue the series thus started with subsequent volumes from time to time.

BI-POLAR THEORY OF LIVING PROCESSES: George W. Crile, M. D. Cloth, 405 pages. The MacMillan Company, New York.

This volume presents an attempt to present certain conclusions which are based upon research conducted by the author. The progress of these studies and the development of the theory are summarized. As such the text and the experiences of the author form interesting premises for scientific conjecture.

THE MEDICAL CLINICS OF NORTH AMERICA (Issued serially, one number every other month.) Volume IX, Number V, (Chicago Number, March, 1926.) Octavo of 206 pages with 34 illustrations. Per Clinic year, July, 1925, to May, 1926. Paper, $12.00; Cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

THE MEDICAL CLINICS OF NORTH AMERICA, (Issued serially, one number every other month.) Volume IX, Number VI, (Chicago Number, May, 1926.) Octavo of 202 pages including complete Index to Volume IX, with 24 illustrations. Per Clinic year, July 1925 to May, 1926. Paper, $12.00; Cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

THE SURGICAL CLINICS OF NORTH AMERICA, (Issued serially, one number every other month.) Volume VI, Number II (San Francisco Number—April, 1926.) 250 pages with 73 illustrations. Per Clinic year, (February, 1926, to December, 1926.) Paper, $12.00; Cloth, $16.00 net. W. B. Saunders Company, Philadelphia and London.

These three issues maintain the high standard that has long been established by these clinics.

1925 COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION, Rochester, Minnesota. Octavo of 1078 pages, 252 illustrations. Cloth $13.00 net. W. B. Saunders Company, Philadelphia and London.

Volume 17 of the Collected Papers of the Mayo Clinic are now available. It maintains its former standard and imparts progress of the scientific work that is being accomplished at this time. Every practitioner and surgeon will find this volume to be extremely helpful in a truly Post-Graduate course of clinical reading and study.

A MANUAL OF NORMAL PHYSICAL SIGNS: W. B. Blanton, M. D. Cloth, 205 pages. Price, $2.50. C. V. Mosby & Co., St. Louis, Missouri.

This is an excellent manual for students and internes as well as a guide for others conducting physical examinations and as such is commended to the Profession.

RELATION OF ANAPHYLAXIS TO IMMUNITY

One of the debated questions in immunology is the relation of acquired hypersusceptibility to acquired immunity. W. H. Wanwaring, Ralph W. Wright and Phil W. Shumaker, Stanford University, Calif. (*Journal A. M. A.*, April 24, 1926), thought to throw light on this question by studying the relationship between the sensitizing antibody and the immune antibodies in the dog, an animal not yet used in such comparisons. They found that the difference between the sensitizing antibody and the immune antibody is not merely a quantitative one. The two antibodies apparently have wholly different physiologic properties.

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Vol. XXV. GRAND RAPIDS, MICH., AUGUST, 1926 No. 8

Original Articles

A STATISTICAL STUDY OF SCARLET FEVER—TERM PAPER IN VITAL STATISTICS

MELVIN P. ISAMINGER
ANN ARBOR, MICH.

This study of scarlet fever is based on 25,855 cases and 568 deaths reported to the Michigan Department of Health in 1923 and 1924.*

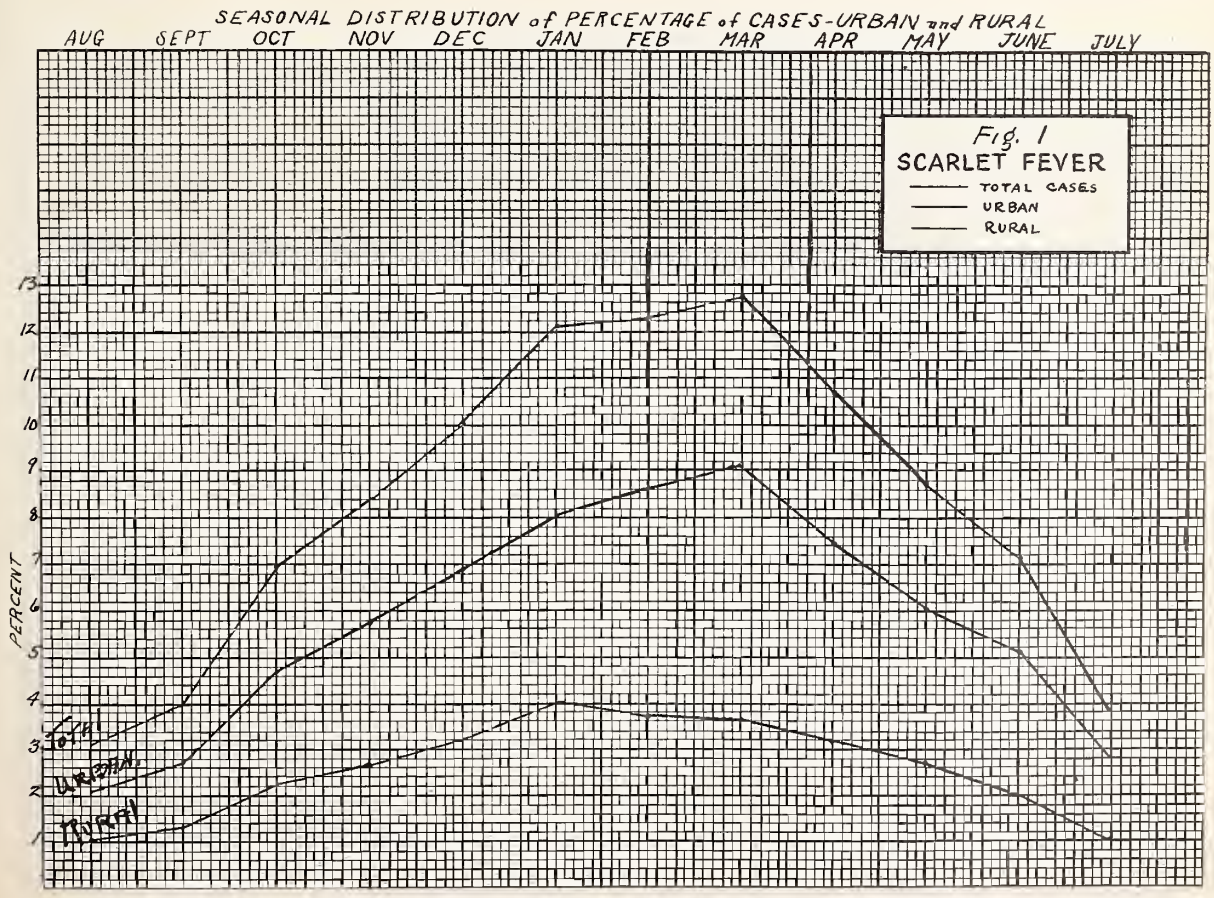
The statistical evidence seems to indicate that scarlet fever occurs at all ages, is most common in childhood and rare under one year of age. It is more prevalent in the colder months, but there is little correlation between fatality and incidence by months, the two curves showing little uniformity in their course when the percentage of cases are plotted against the epidemic year by months.

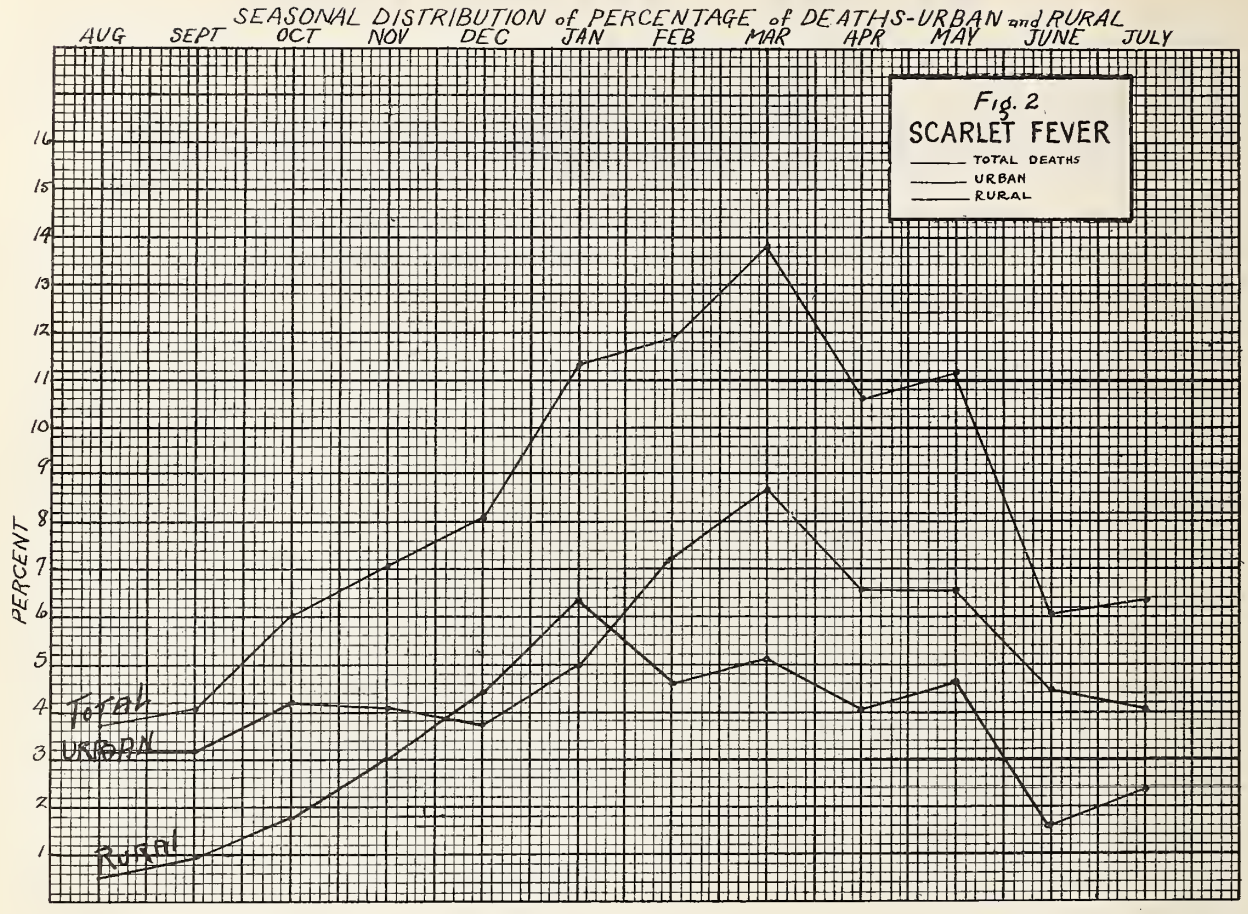
The fatality rate is higher in rural than urban districts but about the same for males and females. The females are more susceptible than males, or predisposing factors are more favorable for them to be infected, since after the first few years of life they exceed in percentage of cases in each age group and in percentage of deaths for each age group except one. (See Fig. 3 and 6).

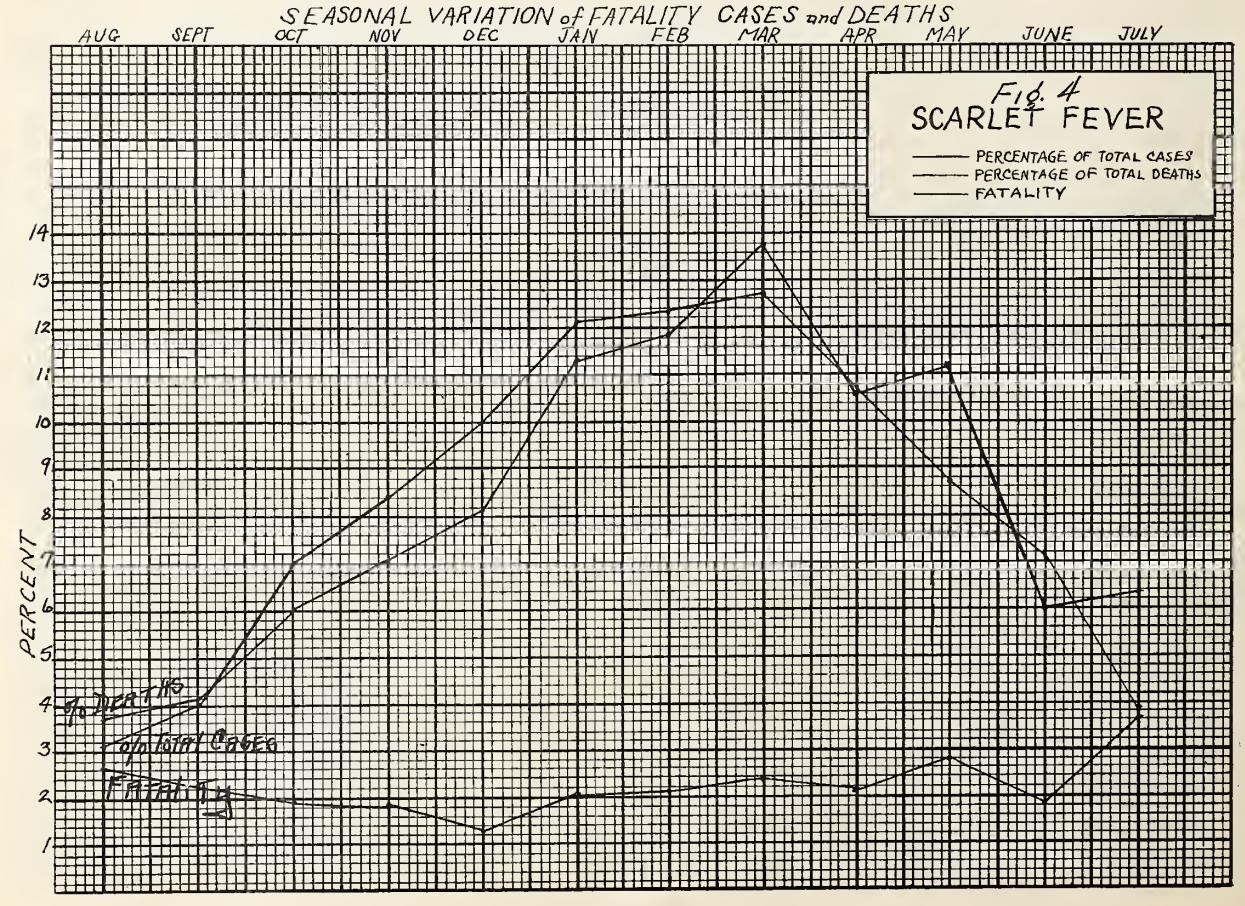
*See Figure 8.

SEASONAL VARIATIONS

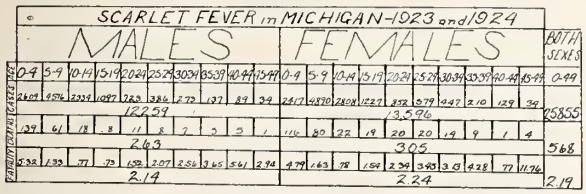
The percentage of cases for each month is




SEASONAL DISTRIBUTION of PERCENTAGE of DEATHS-URBAN and RURAL
AUG SEPT OCT NOV DEC JAN FEB MAR APR MAY JUNE JULY
Fig. 2
SCARLET FEVER
TOTAL DEATHS
URBAN
RURAL
PERCENT
Total
URBAN
Rural


SEASONAL VARIATION of FATALITY CASES and DEATHS
AUG SEPT OCT NOV DEC JAN FEB MAR APR MAY JUNE JULY
Fig. 4
SCARLET FEVER
PERCENTAGE OF TOTAL CASES
PERCENTAGE OF TOTAL DEATHS
FATALITY
PERCENT
% DEATHS
% TOTAL CASES
FATALITY

shown in Fig. 1. That scarlet fever is a winter disease is illustrated very definitely.



(Figure 8)

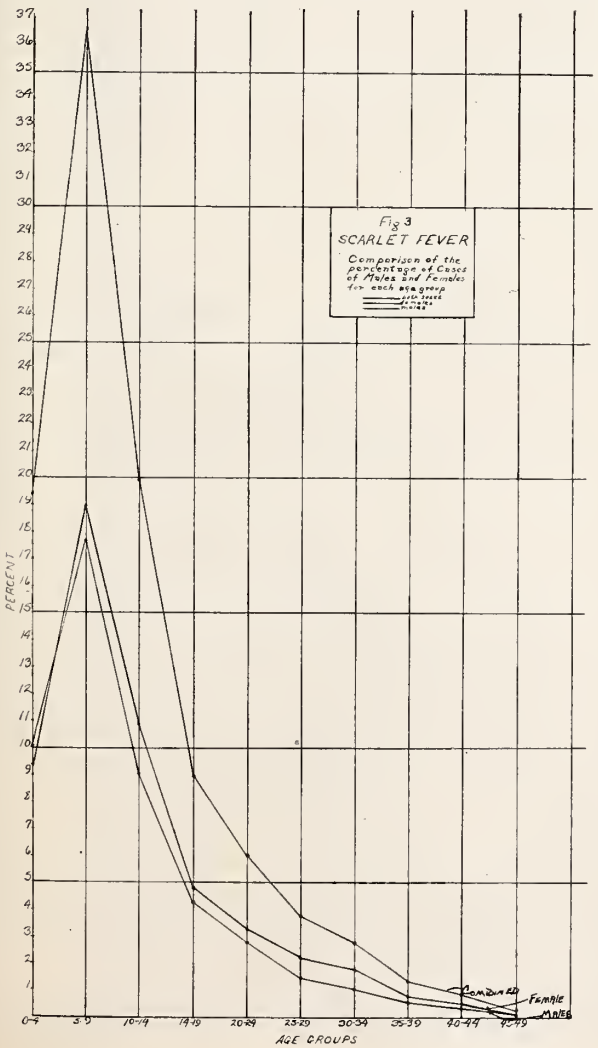
When the percentage of cases is plotted according to the epidemic year beginning with August the course of incidence follows a normal curve of frequency with the mode in March and the lowest points in August and July.

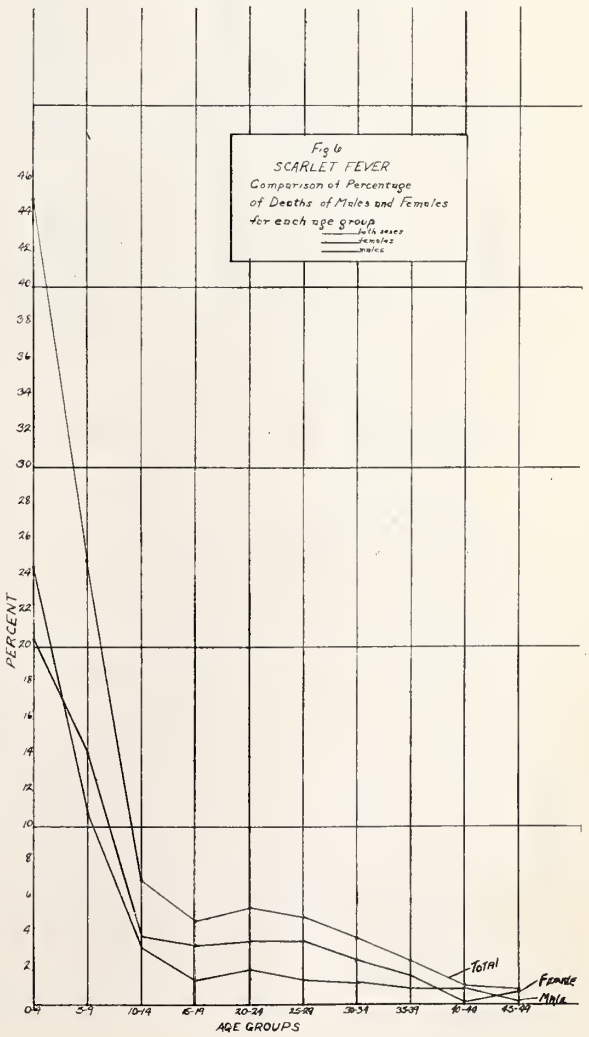
In August the incidence is lowest and in September the increase is slight, less than one per cent, but with the opening of schools, the coming in of colder weather and closer contact of individuals the curve takes a more marked ascent, 37.12 per cent of all cases occuring in January, February and March and 57.87 per cent of the cases from December to March. There is a very consistent decline beginning with April and diminishing until August.

In a comparison of incidence of urban and rural districts an interesting difference is called to one's attention. There is a longer period of increase of cases in the cities than in the rural districts. The urban curve follows the course of total cases very closely with the lowest incidence in August and July and ascending from August to March, reaching its height there, then declining. For rural, starting in August, the number of cases increase each month up to January, then declining. The theatre season is probably at its maximum in the cities during January, February and March and this may be a factor in prolonging the period in which cases continue to increase.

The highest percentage of deaths for any single month also occurs in January for the rural communities while March is the month which exceeds all others in percentage of deaths for the cities.

The highest percentage of total deaths for any one month is in March, the lowest in August. The same is true for cases, but

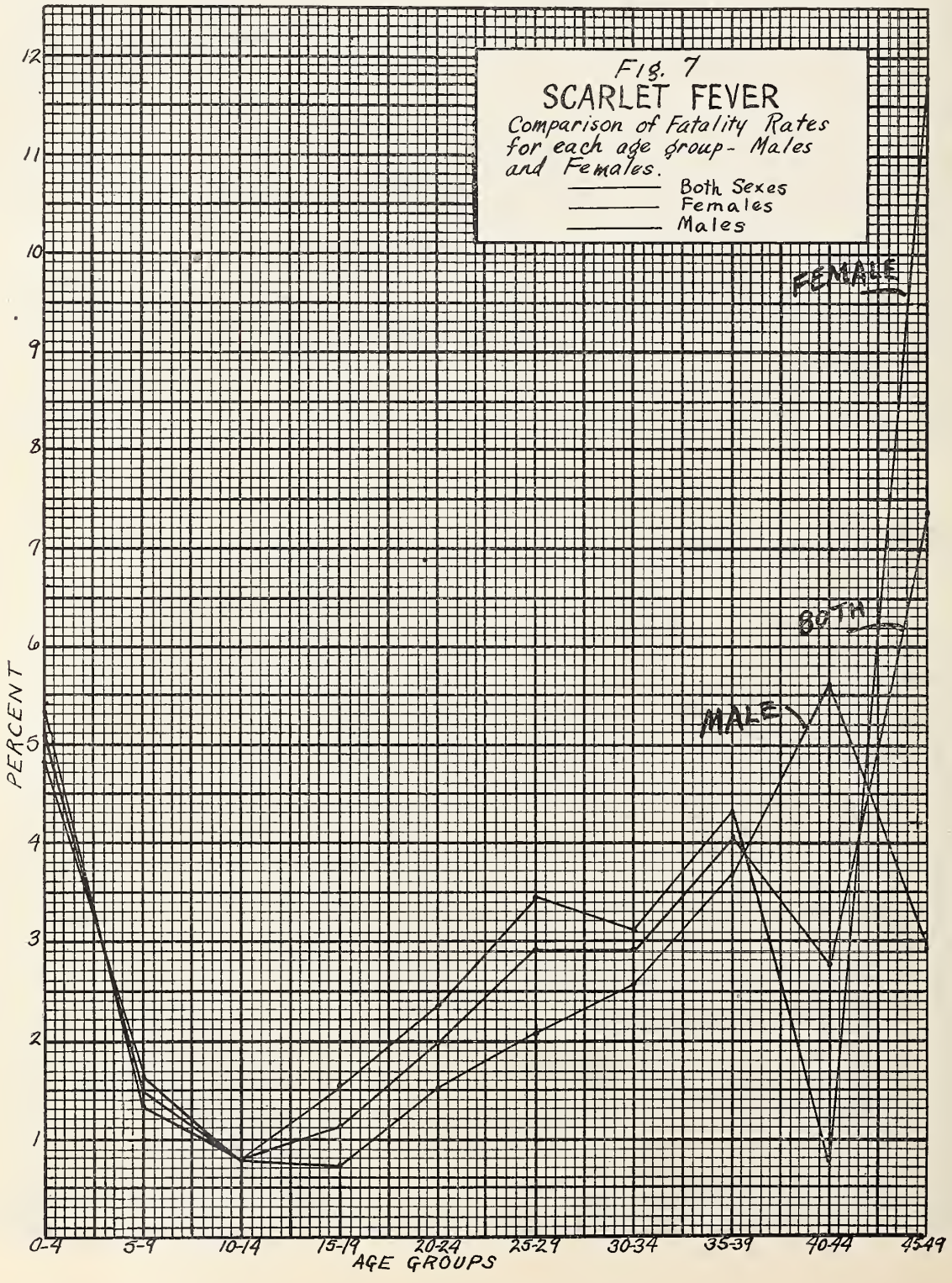




the deaths do not follow the normal curve so closely as the incidence of the disease. Fig. 4 shows that there is a conspicuous reduction of deaths in April, rising in May and dropping again in June while the number of cases diminish each month starting with April. This may be explained by the more or less environmental factors which influence the incidence of scarlet fever, while the factors affecting the occurrence of death from one month to another are more variable and accidental.

The monthly fatality rates do not follow the normal curve. There is a gradual drop from August to December, then a rise in January, February and March, then fluctuating with the highest fatality in July. The monthly fatality rates in decreasing order are as follows:

Month	Per Cent
July	3.63
May	2.79
August	2.63
March	2.37



September	2.24
February	2.10
January	2.04
October	1.89
November	1.84
December	1.28

The fatality rate is much higher for rural than for urban, 2.80 per cent and 1.92 per cent respectively, which can be attributed to the lack of care and medical supervision in the country.

AGE AND SEX VARIATION

Scarlet fever is primarily a disease of childhood as illustrated by Fig. 3 and Fig. 6, since 69.2 per cent of all the deaths and 56.05 per cent of all the cases occur under ten years of age. The curve subsides consistently as the higher ages appear. The percentage of cases under one year is extremely low, .75 per cent of the total, but the fatality rate is relatively high, 8.2 per cent.

This appearance of the majority of cases and deaths in childhood is frequently ascribed to a higher susceptibility of children to the disease, but another factor must be given some consideration. Scarlet fever is pre-eminently a contact infection differing from measles and whooping cough in mode of transmission.

Close contact is more important in the transmission of scarlet fever while in measles the virus is carried thru the air by moist particles expelled in coughing and may travel thru considerable air space.

In childhood this close contact is more common than in adults. Children play together, assemble in groups and often sleep together. They are uncleanly with their secretions which may soil their faces, hands and clothes. Thus, the conditions which favor the spreading of a contact infection like scarlet fever are multiplied in the early ages.

The rarity of the disease in the first year of life may be due to a lack of this contact with individuals.

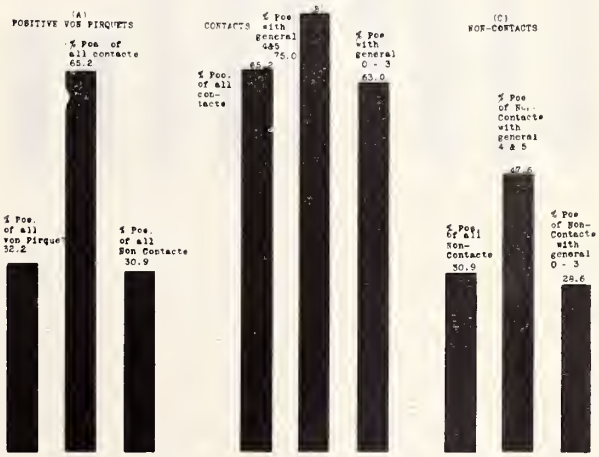
FIRST PRELIMINARY MEDICAL REPORT—DUBOIS HEALTH CENTER DEMONSTRATION OF THE TUBERCULOSIS SOCIETY OF DETROIT AND WAYNE COUNTY

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So many factors are concerned in the study of tuberculosis, that in many respects it is in reality a study of the complexities of life itself. It is true that some aspects are particularly important but it is nevertheless so that no one factor is all important. In Detroit, the leading economic city of the country—in fact one may say without hesitation, the leading large city in the world economically—it is fitting that various groups have become vitally interested in the prevention and control of the White Plague. In carrying out any useful program against this disease, one is pursuing from all angles the elimination of disease in general for it is impossible to separate one from the other. It has been truly said that the greatest discovery of all time to humanity is preventive medicine.

The demonstration area of the Dubois Health Center is a cross section of Detroit, with a population of 25,000 and has its approximate central point at the location of its offices, 5821 Dubois. Taking full advantage of the findings and recommendations of the successful demonstration in Framingham, Mass., and more recently that of the Milbank Memorial Fund in New York, the Tuberculosis Society of Detroit and Wayne County is making a thorough detailed study from the Social, Economic, and Medical aspects.

Figure 1.

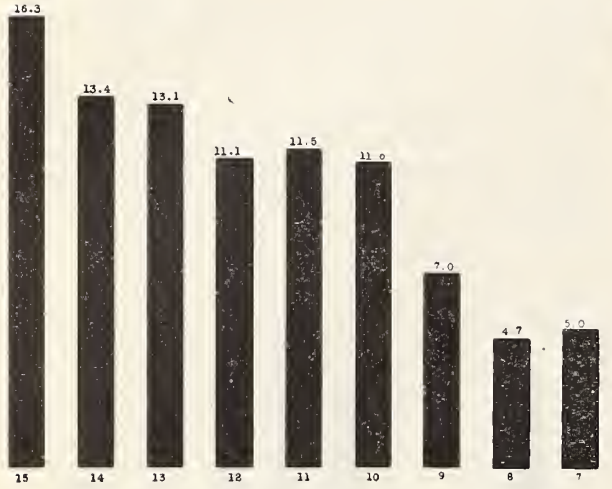


Showing the percentages of positive von Pirquet reactions in school children in groups: A contacts and non-contacts. The contacts (49 children) B and the non contacts (1,135 children) C are shown divided into normal and abnormal nourishment and development groups.

The work is carried out in co-operation with the existing organizations of Detroit, the Board of Health, Department of Public Welfare, and the various hospitals of the city as well as the Mother's Pension of the State of Michigan. The area contains 77% of Polish people and as they total approximately 200,000 in greater Detroit (including Highland Park and Hamtramck) and form the largest foreign group, the data obtained will be essential factors for the city.

It is also worthy of note here that this is the first piece of work of this type done in which Polish people are the predominant race and as such will be particularly useful for comparative purposes throughout the world, in addition to its direct importance to Detroit. Following a survey and investigation of the area's possibilities it was deemed advisable to divide the work into three age sections, 1-6, 7-15, 16 upwards. We started with that of 7-15, which group forms

General 4 and 5 Figure 2



153 children showing under nourishment and under development, in age groups.

the chief material for this report. The adults will be reached through the activities carried out with the children. The section ages 1-4 will be taken up in the near future and although our death rate from all forms of tuberculosis in this group is low compared to other countries, it is indeed a very important one, in fact in some respects it is the most important group.

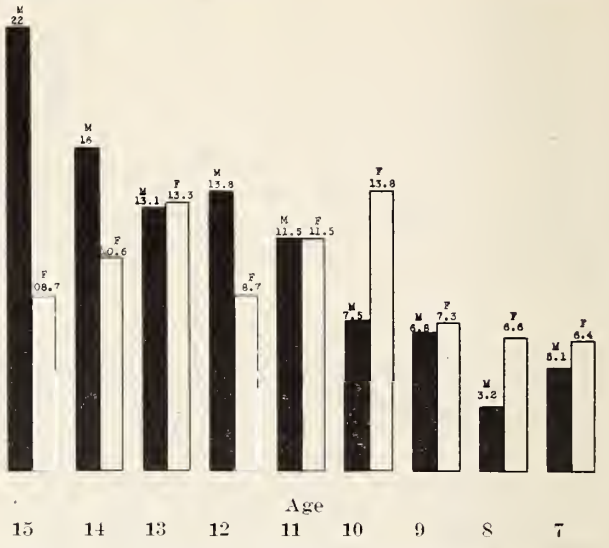
The school age is that of the lowest mortality from tuberculosis.* However, immediately after graduation from school for more or less apparent reasons, there is a sharply increasing rate of death. We are dealing in the school age survey with children who have no symptoms or signs and are not applying for diagnosis and treatment but who are undergoing the examination in all its details chiefly for investigation of their future and prevention of this disease, in fact all diseases. Our aim is to pick out the susceptible ones during the school period and gradually prepare them for the increased risks and dangers until they are fighting fit, so to speak, for their later life struggles. The program with this group is thus one of anticipation.

In order to get detailed information all physical examination observations were divided into numbers, from 0 to 5. The numeral 1 represents the recognized standard, with 0 being superior to that standard. 2 is fairly good and 3 within the normal limits, while 4 and 5 are progressively abnormal. Data studied were general nutrition and development, heart, lungs, cervical glands, tonsils and adenoids, naso pharynx, teeth, thyroid, chest expansion and capacity, temperature, pulse, respiratory rate, examination of urine, eyes and ears and any other factors requiring investigation were noted. Special attention is being paid to Von Pirquet tests and Roentgen rays, the latter being carried out on all contacts and those with general 4 and 5 (Undernourished and underdeveloped) having a positive Von Pirquet. These photographs will be taken annually and after illnesses and will be very important factors for correlation purpose.

The children are divided into the following groups:

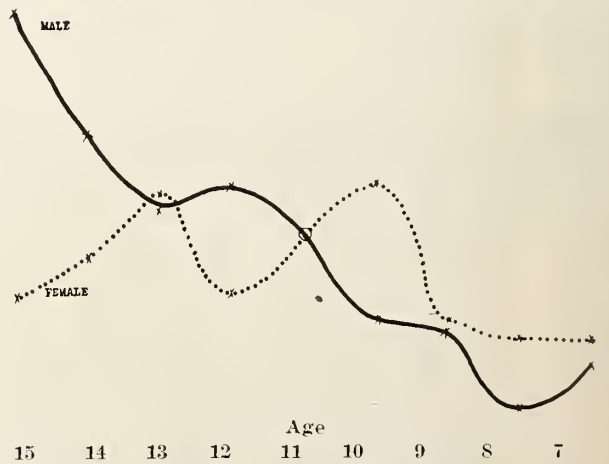
*(Because of the crowded condition in the parochial schools in this area, 7 years is the minimum age.)

General 4 and 5 (Age-Sex) Figure 3



Those with under nourishment and under development in age and sex groups, 153 in number.

General 4 and 5 Figure 4



Linear comparative diagram of under nourishment and under development in age and sex groups—153 children.

(1) Contacts. (2) Positive Von Pirquet with general conditions 4 and 5 (Poor development and nourishment). (3) Positive Von Pirquet with normal general conditions (0 to 3). (4)Negative Von Pirquet with general conditions 4 and 5. (5) Negative Von Pirquet and normal general conditions (0 to 3).

(1) Tuberculosis being an infectous disease the first and by far most important group is that of the contacts. This group includes only children continuously exposed to open cases of tuberculosis. That a large number of them would ordinarily develop clinical active tuberculosis in adult life is a recognized fact. Figure 1 shows Von Pirquet positive in 65.2% of all contacts and 75% of contacts with general 4 and 5.

(2) Positive Von Pirquet with general conditions of 4 and 5 means there is infection with the physical condition undermined so that they will have less resistance to active involvement when a break occurs in their late life whether social, economic, or medical break. Though infection is apparently present, a history of contact has not been elicited in this group. The percentage of positive Von Pirquet of all non contacts is 30.9 while that of the general 4 and 5 in this group is 47.6 as against 28.6% of general 0 to 3. Fig. 1.

(3) Positive Von Pirquet with normal general conditions (0 to 3). In this group there is a source of infection and their physical condition is good and if kept good active disease should not develop. Here the procuring of good social and economic factors, if not already existent, is particularly important.

(4) Negative Von Pirquet with general 4 and 5 are those which because of their physical condition may easier become infected with tuberculosis if exposed later. Therefore, in this group one must first investigate the possibility of tuberculous disease in those of the family with which the children have continuous contact and secondly to correct any defects and remedy nutritional and social and economic factors that may be the cause.

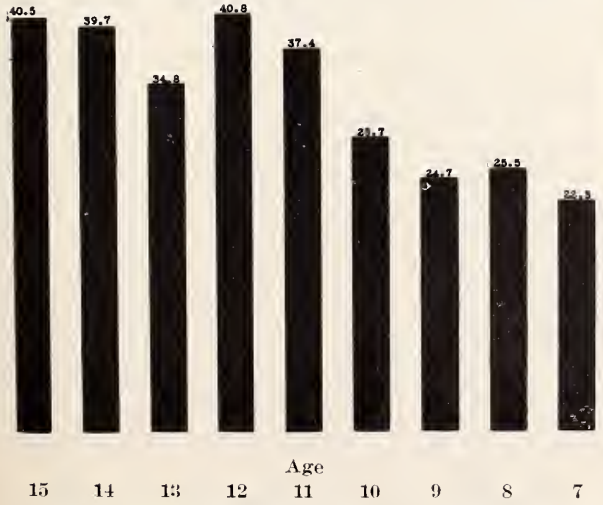
(5) Negative Von Pirquet and normal general conditions (0 to 3). This group needs the least attention and observations are required only for purposes of keeping these children equally well in the future.

Corrections of teeth, tonsils, etc. are being made as soon after the examinations as possible. The majority of group 1 and 2 (contacts and general 4 and 5 with positive Von Pirquet) will be requested to accept yearly sanatorium care during the summer for two months. In Northville Camp this year the arrangements are for the children to be divided according to sex and they will be permitted to roam about with the minimum amount of clothes. In this way in addition to the air they will get the fullest effect of the sunshine.

On returning to school next autumn, the contacts and those undernourished and underdeveloped with positive Von Pirquet will be given Open Air schooling and later it is hoped to get such accommodation for other groups. A course in dietetics, a very important addition, will be given these children; also exercise.

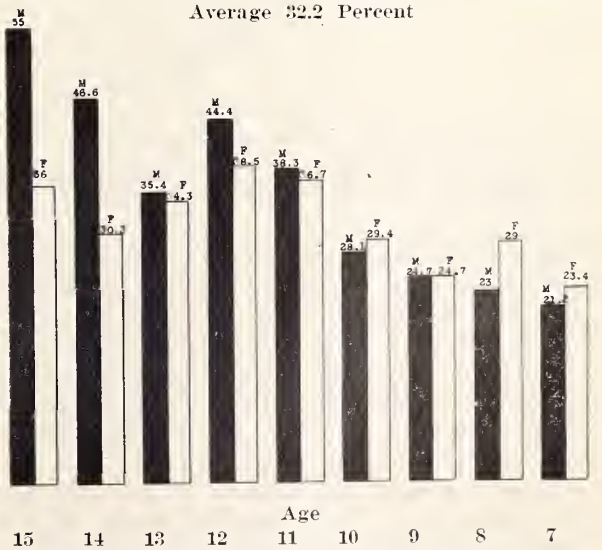
As the pupils of the school graduate, they will be given a special examination and recommendations made with reference to future schooling (including manual training) or work and will be taken in hand by the social and economic departments where suitable work will be an important aim. The

Positive von Pirquet in Age Groups Figure 5



Showing percentages giving positive von Pirquet in age groups—1,184 children.

Positive von Pirquet (Sex-Age) Figure 6
Average 32.2 Percent



Showing percentages giving positive von Pirquet in age and sex groups—1,184 children.

graduates will be requested to continue to attend annually for examinations and other observations.

Table of Correction Recommendations—1542 examinees. Figure 12.

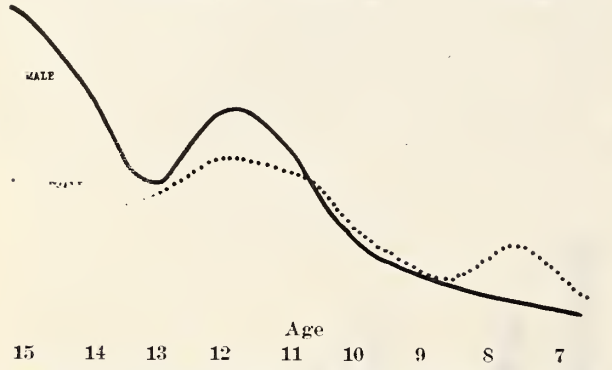
General 4—147; 5—54 making a total of 201 of poor development or nourishment or both.

Figure 2 shows a progressive increasing percentage of general 4 and 5 as the age becomes higher. When divided according to sex, the age increase is much more marked in the male than in the female. Taking the sex in proportion, figures 3 and 4 show that up to and including age 10, the percentage in the female is greater than in the male. while the converse is true in the higher ages.

Tonsils and adenoids. 4—365, 5—536, total 901 or 58.4%. Only the 5 were recommended for immediate removal or 34.7%. It might here be mentioned that size was but one consideration in classifying the actual condition of the tonsils, visible outward affects and toxicity being more important. Tonsillectomies had previously been performed on 13.4% of cases, making a total of 48.1% of entire number who apparently required it.

Thyroid. This area is in the so called "thyroid belt" and the numbers are therefore high, being especially so in girls. This group is an exception to the general grading of 0 to 5, 0 only being normal and 1 to 5 degrees of enlargement, 4 and 5 requiring

Positive von Pirquet (Sex-Age) Figure 7



Comparative linear diagram of the percentages giving positive von Pirquet age and sex groups—1,184 children.

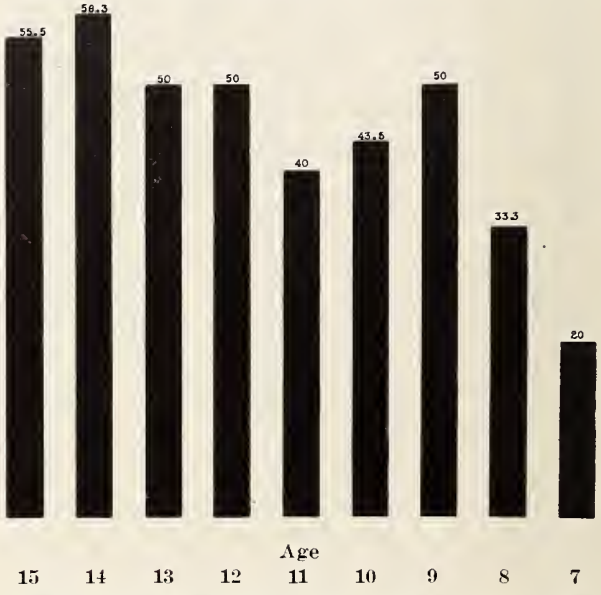
active treatment. 0, normal 658 or 42.6% (much less than half); 1—266, 2—289, 3—199, 4—138, 5—10. Those requiring active treatment, the latter two, form 9.4%.

Cardiac. 45 or 3% showed definite cardiac involvement and 30 others showed one or more signs of possible cardiac conditions and require further observation.

Von Pirquet. As a basis of the presence of infection (if not actual disease) in the absence of symptoms, signs, etc. the test is invaluable and great stress is therefore placed on it in this study. In children with negative reactions three tests are made while the Von Pirquet is dispensed with on this occasion in those having recently had measles, influenza or whooping cough.

Figure 5 shows the positive Von Pirquet tests in age groups. Age 7 gives 22.3% gradually increasing to age 10 and a sharp rise after that followed by slight variations up to age 15. There seem to be two defined groupings in this figure, ages 7-10 and 11-15 years. Taking figure 6 (Sex and age) the male shows a gradual rise from age 7 upwards, the percentage at 7 being 21.2 while at 15 it is as high as 55%. Thus the infection progressively increases in the male in proportion to age, more sharply than is the case in the female, although here too there is a rise. When considering the proportion according to sex, it is greater in the female from age 7 to 10 while from 11 upward the

Positive von Pirquet. General 4 and 5 Figure 8



Showing the percentage giving positive von Pirquet in those with under nourishment and under development, in age groups—138 children.

male predominates in positive reactions, figure 6 and 7.

The Von Pirquet reaction is particularly important in those with general 4 and 5 as being under developed and under nourished. They are more susceptible if exposed. Figure 8 shows a rise from age 7 upwards, the rise being sharp in the 2 younger ages. When taking sex as well as age into consideration, there is also a sharp progressive rise in the male from age 9 upward, figure 6. The proportion of positive Von Pirquet is greater in the female in the ages 7 to 10 while the male predominates from 11 upward, figure 9 and 10.

Summary and Conclusions:

(1) Our program is one chiefly of antic-

ipation. If an ounce of prevention is worth a pound of cure, a gram of anticipation is worth an ounce of prevention.

(2) A correlated study of history, clinical findings, Von Pirquet and X-ray are carried out over the school years in conjunction with the social and economic conditions.

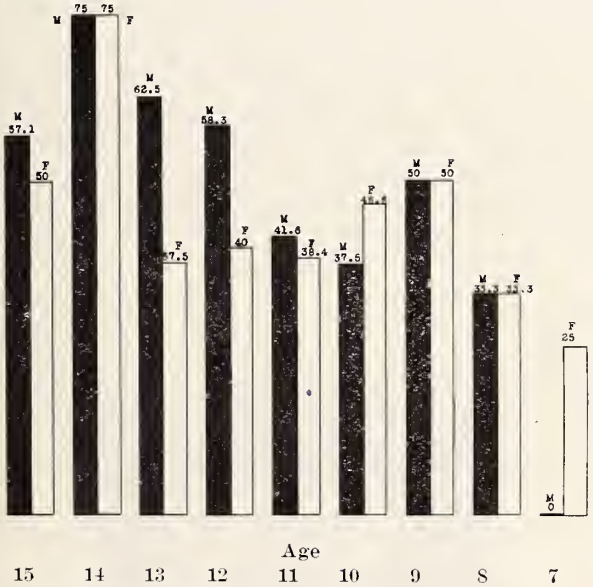
(3) During school age there is going on a slow process of increasing tuberculosis tendencies, particularly with the boys of this area.

(4) The children requiring it are sent to Open Air School and regularly examined throughout the school period, all necessary corrections being carried out. During summer months the more needy are treated for two months in an Open Air Camp.

(5) Social and economic home conditions corrected where required.

(6) At the time of graduation a special examination is made with reference to further schooling (including training) for their future life. The girl or boy is helped in procuring suitable work—that is work which will not under ordinary circumstances cause a break down during adult life.

Positive von Pirquet, General 4 and 5 (Age-Sex)—Fig. 9



In age and sex groups—138 children.

(7) Advised to return for annual examination and observation.

(8) Practically all of the school pupils examined required active dental treatment. Arrangements have been made with the school authorities and the Board of Health for having a dental clinic in the school building.

(9) The proportion of tonsils and adenoids requiring active treatment is larger than the average for the city or county. The nurses visit every home with reference to carrying out correction.

(10) Thyroid involvement is great, much more than half the entire number, particularly girls being affected. Advice will be given on this subject in classes, chiefly nutritional.

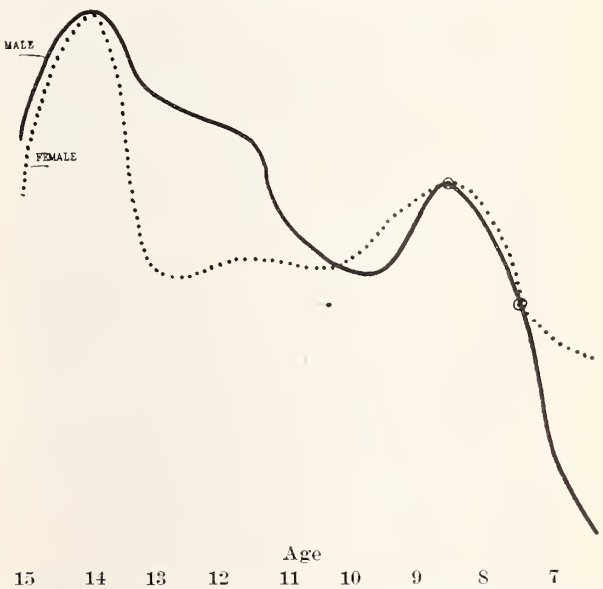
(11) Cardiac involvement is twice the general average for the city. By making early corrections and by health and nutritional education and Open Air Schooling, beneficial results are certain to follow.

(12) In proportion to other findings, the cervical glands figures are good. This is an important item as to the possible source of future tuberculous involvement.

(13) Those having under nourishment and under development (General 4 and 5) progressively increase in proportion in age group from 7 years upwards. This is particularly apparent in the male while in the female there is comparatively very little variation in age groups.

(14) Von Pirquet reactions. One thousand, one hundred and eighty-four were given Von Pirquet tests. The positives of the entire number, irrespective of any grouping, formed 32.2%.

Positive von Pirquet, General 4 and 5 (Male-Female)
Figure 10



Comparative linear diagram of the percentages giving positive von Pirquet, in age and sex groups—138 children.

(15) Tonsils and adenoid involvement had no effect on Von Pirquet reaction; there was a higher rate of positives in cervical gland involvement as well as in those with general 4 and 5. (Fig. 11).

(16) The contacts gave 65.2% positive as against 30.9% in non contacts, much more than double.

(17) Of the contacts, those with general 4 and 5 were 75% positive as against 63% with general conditions.

(18) The non contacts with general 4 and

5 gave 47.6% positive while those with normal general condition were 28.6% positive.

(19) Of the positive Von Pirquet, the male proportion progressively increases from age 7 upwards, while the female has a comparatively slight increase.

(20) An outstanding feature is the fact that from 7 to 10 years the proportion of positive Von Pirquet is greater in the female generally and the proportion of general 4 and 5 takes on the same curve, while after age 10 the male sex predominates.

(21) The presence of infection as well as under development remains more constant throughout the school period in the female with only a slight gradual rise, while the male, better equipped in early school life, becomes poorer equipped proportionally after the age of 10.

(22) Under nourished and under development is more important proportionally in non contacts giving 47.6% positive Von Pirquet as against 28.6% with general conditions 0-3, or an increase of 66.4%. In contacts those having under nourishment and under development gave 75% positive as against 63% with general conditions 0-3, or an increase of 19%.

(23) In the children who are both general 4 and 5 and have positive Von Pirquet, the age and sex differences are not as apparent in larger age groups as where one of these conditions exists.

Fig. 11. School Class Groups, Increasing Totals as Tested—Equal Number of Positive and Negative Von Pirquets

		January 25-29		February 1-4		February 8-11		February 15-18 and 23-25		March 1-4		March 8-11		March 15-18		March 22-25		April 8-9		April 12-15		April 19-22	
Von Pirquet		Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.
General	0	11	10	12	12	21	15	23	18	23	19	24	23	25	23	27	24	28	26	31	29	34	30
	1	30	40	35	47	48	59	67	73	74	82	81	90	90	101	103	113	108	116	111	119	116	120
	2	27	23	31	28	38	38	41	42	47	46	50	50	55	54	58	64	61	67	63	68	66	72
	3	33	29	41	37	50	49	58	63	66	68	71	73	73	76	78	79	81	83	83	86	83	88
	4	14	13	19	16	20	20	26	24	27	27	30	27	32	28	33	30	33	30	34	31	34	32
	5	12	12	15	13	17	13	18	13	18	13	20	13	20	13	22	13	22	13	22	13	22	13
Tonsils and Adenoids	0	0	3	0	3	0	3	0	4	0	4	0	4	0	4	0	4	0	4	0	4	0	4
	1	7	10	12	10	12	11	15	14	15	14	15	15	17	15	17	16	17	17	18	18	18	19
	2	14	9	17	12	19	16	23	20	26	23	28	26	30	27	32	30	34	30	34	31	35	33
	3	15	25	20	28	31	36	38	44	41	45	44	45	46	48	52	53	54	53	56	55	58	57
	4	36	21	42	28	51	36	56	42	59	49	65	54	68	62	72	68	76	71	77	73	80	77
	5																						
	5	55	59	62	72	81	92	101	109	114	120	124	132	134	139	148	150	152	158	159	163	164	165
Cervical Glands	0	1	2	2	2	2	2	2	3	2	3	2	3	2	3	2	3	2	3	2	3	2	3
	1	17	22	24	27	33	43	39	50	42	53	42	55	43	57	45	58	45	58	46	58	47	61
	2	58	58	65	71	86	84	102	103	110	112	115	122	124	132	132	147	136	149	139	155	143	160
	3	40	39	51	47	62	59	76	68	85	78	100	87	109	92	122	100	129	107	134	112	139	113
	4	10	4	10	5	10	5	12	8	14	8	15	8	15	10	18	12	19	15	21	15	22	16
	5	1	2	1	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
		127		153		194		233		255		276		295		321		333		344		355	

CORRECTIONS 1,542 CHILDREN (Fig. 12)

General		Tonsils and Adenoids			Thyroid		Cardiac		Von Pirquet		Cervical Glands	
4	5	4	5	Operations *0	4	5	Disease	Obs.	Pos.	Neg.	4	5
147	54	365	536	196	138	10	46	25	386	812	100	14 or
			34.9%	13.4%			3%	1.6%	32.2%			0.9%
201 or 13%		901 or 58.4%			148 or 9.6%				1198		114 or 7.4%	

CONSERVATISM IN THE TREATMENT OF HAND INJURIES*

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The upper extremity is ideally constructed as a prehensile organ, and has a more delicate and complex neuromuscular mechanism than the lower. This probably accounts for the greater disability caused by so called minor traumatic lesions of the hand and arm, as compared with similar conditions in the foot and leg. A slight injury to the lower extremity, while impairing the less highly developed functions of weight bearing and locomotion is rarely as serious as a similar injury in the upper extremity. For this reason, extreme conservatism in the surgical treatment of injuries of the hand and arm is most important.

Each industrial injury differs from the others so much that it would be difficult for any text book of surgical technic to describe in detail the operation necessary for the repair of the injury. It is possible to formulate only general rules, based largely on observations of end results, obtained by various procedures and different operators. The observations presented here are based on a large series of cases. The following three are selected to illustrate the principles involved.

CASE I. This patient, a man of 24, was a mechanic. His left thumb was severed through the proximal phalanx except for about five mm. of skin on the dorsum, and the tendon of the extensor pollicis longus. The accident occurred when his thumb was caught between two small trucks which jammed together. He was sent to the hospital after being told that amputation of the thumb would be necessary. On examination approximately one-half hour after the accident, it was found that there was considerable crushing of the skin edges on the palmar surface of the thumb. The phalanx was fractured transversely, and there was some comminution of the ends of the bone. The distal portion of the thumb was pale and cold. There was not enough bleeding from the proximal cut surface to necessitate the application of a tourniquet or the ligating of any vessels. There was reasonable doubt that circulation could be restored to the end of this finger. Knowing that the hand with only the stump of the proximal phalanx of the thumb remaining, would be practically useless for grasping, an attempt was made to restore the distal part to its normal position. The bone fragments were brought together with a few sutures of fine chromic gut through the periosteum and fascia. The lacerated flexor tendons were sutured in a similar manner. The subcutaneous tissue was approximated with plain cat gut, and the skin closed loosely with a few silk sutures to allow for possible drainage in case infection should occur. Healing was complete and there was only a slight amount of skin infection at the point on the palmar surface where the most crushing had occurred. This patient is now at work



Fig. 1. Case 1. Showing hand in position for grasping. Scar colored with India Ink.



Fig. 2, Case II. Showing marks of cogs across back of hand. The discoloration is due to merecurochrome.

at his former trade and has good use of his thumb. The accompanying photograph (Fig. 1) shows the thumb in the position for grasping. The scar which extends completely around the thumb except for a short distance on the back is colored with India ink. A similar case is reported by Hamilton in the Journal of the Canadian Medical Association.

CASE II. This patient was a woman factory worker. Her hand had been caught between powerful cogs on a milling machine. The little finger was crushed back to the point shown in the accompanying X-ray plate (Fig. 3.) The skin over the dorsal surface of the hand was crushed as shown in the photograph (Fig. 2.) The tendons of the extensor com-



Fig. 3. Sase II. Showing point of amputation of fifth metacarpal fractures of fourth.

munis digitorum to the middle and ring fingers were badly lacerated. There was a compound and extensively comminuted fracture of the fourth metacarpal just proximal to its head. The metacarpo-phalangeal joint of the ring finger had been torn open, but there was no apparent injury to the joint surfaces. The ring finger was merely hanging by the structures in the palmar surface, and the outer end of the shaft of the metacarpal had been broken into so many small pieces, that an effort to save it seemed almost futile. However,, all crushed bone was removed, and the metacarpal head united to the shaft by a few sutures through the periosteum. The joint capsule was closed and the lacerated tendons repaired. There was so much destruction of skin from the crushing of the cogs that it was impossible to complete the closure. In spite of this there was no wound infection and epithelialization was prompt. The only disability remaining now is that due to the shortening of the fourth metacarpal and to some tendon adhesions. This shows that conservative treatment was justified.

CASE III. This patient was a man whose hand and arm were caught in a wool carding machine and were literally torn to shreds. The photograph (Fig. 4)



Fig. 4. Case III. Appearance of hand and arm immediately after being caught in wool carding machine.

was taken within a few minutes after the patient entered the hospital and before treatment was begun. At operation the bones of the forearm were amputated at about the junction of the middle and lower thirds. Above this point there was extensive lacera-



Fig. 5. Case III. Stump with granulations, and ready for skin grafting.

tion and crushing of the soft parts, but in spite of this a conservative repair was done. All tissue possible was spared. At one point it was necessary to leave a small portion of the ulna uncovered. It was impossible to cover any of the stump with skin. A superficial osteomyelitis developed at the area on the ulna which was left bare, but this rapidly cleared, and was soon covered with granulation tissue (Fig. 5.) Later, Reverdin grafts were applied to all areas not covered with skin. As soon as this stump hardens it will be fitted with a prosthesis which would otherwise be impossible had amputation been done high enough to securely cover the stump with skin.

DISCUSSION

When injuries such as those described above are less commonly encountered, they are often treated with the idea of giving the patient a good cosmetic result, and too little attention is given to ultimate function. For instance,it might be a temptation to treat an extensively lacerated and crushed arm with muscles torn from their attachments and with multiple compound and comminuted fractures (such as Case III) by amputating at a point high enough to give the patient a well rounded and perfectly appearing stump. If this had been done with the above patient he would have had a stump of only two or three inches below the elbow. Such a stump is poorly adapted to the application of an artificial arm and is not as satisfactory as the result obtained by more conservative measures. The chief object to be attained in the treatment of these conditions is to give the patient as useful an arm as possible. Most of these patients know only one trade, and unless they are able to resume the same occupation after they recover from their injury they may be almost helpless, and may even become dependent upon charity. Therefore the problem of treatment of a crushed hand or arm becomes an economic as well as a surgical one. The surgeon should always bear this in mind and should constantly endeavor, even at the risk of prolonging the patient's stay in the hospital as a result of his ultra-conservatism, to do an operation which will ultimately give the patient the most useful hand and arm.

A few matters of technic might well be considered at this point. When the patient enters the hospital all active bleeding should be stopped by the application of a tourniquet. If there is much shock an effort should be made to relieve it, by blood transfusion if necessary. Within a short time after the tourniquet is applied there is usually enough numbness of the part to permit the hopelessly crushed and devitalized tissues to be painlessly trimmed away. In the actual repair of the wound a general anaesthetic of ether or ethylene is desirable. If there is much grease and dirt present it is usually easily removed with benzene and ether. After this the cleaning process should be continued until all foreign material is removed, using a brush, green soap and water. This in turn is followed by a thorough lavage of all traumatized tissues with normal saline solution at body temperature. The use of tincture of iodine as an antiseptic in these wounds devitalizes tissues and increases the amount of material which must either slough or be absorbed. In either instance it delays healing and creates an excellent nidus for possible infection. A two per cent aqueous solution of mecurochrome may be used without danger, but the use of any germicidal agent is unnecessary if thorough mechanical cleansing is carried out. This stage of preparation is almost as important as the operation itself. Following this a debridement is done. All completely denuded bone is removed. Even at the risk of future infection pieces of tissue whose viability is questionable may often be saved with surprisingly good results. On the other hand they may slough or later have to be trimmed away. Any muscles or tendons which can be spared and anchored to the stump add greatly to future usefulness. The conservative operator, after leaving bone uncovered in the hope that it may be of use to the patient is often rewarded by seeing granulations rapidly grow in from the surrounding tissue and cover the denuded area. At times pieces of skin completely detached from their circulation will become adherent and form islands of epithelium which decrease the area requiring skin graft later.

CONCLUSIONS

1. Traumatic wounds of the forearm and hand are important economic as well as surgical problems. This should always be borne in mind at the time of the original repair.

2. It is important from the standpoint of usefulness to the patient to conserve as much tissue as possible even when its viability is questionable.

3. The value of any procedure should be judged by the length of time required by the patient to recover the use of his hand and arm, and by the degree of usefulness finally resulting.

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PERIODIC MEDICAL EXAMINATIONS OF THE APPARENTLY HEALTHY*

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(JACKSON, MICHIGAN CLINIC)

The Words of the Poet
"Of all sad words of tongue or pen
The saddest are these 'It might have been'"

were written many years ago. However they might well be used in connection with Preventive Medicine and Periodic Medical Examinations. Preventive Medicine has become an important and valuable development in Medical Science. The periodic examination of the apparently healthy has revealed many vital defects or impairments which extensive experience has taught would have meant a shorter life and certainly a very unhappy one.

Let us consider some of the basic desires of man in his effort to continue to live. The distinguishing feature and essential peculiarity of American History is that for three centuries the United States had a frontier. Not a fortified border but a place "where the trails run out and stop." With each advance of that frontier, new territory was settled and developed until each geographical division of the United States has gone through stages of advancement.

What is true of the geographic development is also true of modern scientific medicine. Each new division of scientific endeavor opened up has had further development of the fields of investigations thus opened for study. Greek and Roman medicine have left but little imprint upon modern medicine because the pioneers such as Galen and Hipprocates explored new fields but there was no development in these subjects. For almost 1500 years after Galen, the field of medicine was as truly unexplored as was the American Continent between the voyages of Lief Ericison and Christopher Columbus. Just as other pathfinders followed in chronological order so in the field of Medicine the frontiers have been pierced by such men as Vesalius, Wiersung, Willis and Havers. Vesalius gave us his valuable plates of dissection and Wiersung told us of the ducts of the pancreas, Willis told us of the circle of bloodvessels at the base of the brain, while Havers described the canals in the bones.

Other trail makers came, who told us of the function or physiology of the body. Harvey published his epoch making discovery of the blood. Beaumont studied digestion and told us as of his work with Alexis St. Martin. Bernard and Sequard opened the now fertile field of internal secretion. Jenner, Pasteur and Lister formed a triumvirate that has given the human race reason to rise up and call it blessed.

The last medical frontier to be explored is Preventive Medicine. In 1796, Jenner published his method of preventing small pox by vaccination and thus changed a piece of folklore into a scientific truth. Very little was done in other fields of protective inoculation until Pasteur used it in bestowing immunity to animals from anthrax and hydrophobia. Lister introduced his methods of antiseptic surgery in a very fertile field. His work was influenced by the work of Pasteur. Pasteur had not studied medicine yet he was able to determine the true cause of disease hidden from physicians through out the world's history. He trod unblazed trails with an accuracy and tireless zeal almost beyond comprehension. He was the first to recognize the significance of micro organisms in the economy of Nature. It has been said that Pasteur and Lister "formed a brotherhood of science laboring to diminish the sorrows of humanity" yet their efforts at first were met with scorn and indifference.

In brief such were the medical frontiers established until the early seventies. Koch, Behring, Roux, Ross, Reed, Lazear, Meyers, Gorgas and many others were pathfinders and made epochal discoveries which have followed with startling rapidity until today even the school child speaks in no uncertain terms about his "Schick test." The frontiers have been extended so fast that as yet some of the fertile fields are touched but little. Much of the benefits are yet to be realized. This great renaissance of science has caused the frontiers of medicine to dwindle to narrow margins and isolated areas. It has not however finished all the work. It has only begun. Some one has said that great as is the work of the pioneers, both geographic and scientific, their work only opens up the territory which they have explored. They do not make it useful and available to mankind. New wars both in the geographic and a scientific sense are constantly being waged. While war claims its sacrifice in millions of lives, disease each year claims its tens of millions. Pneumonia, tuberculosis, influenza, cancer, meningitis, malaria, epilepsy, insanity, feeble mindness, malnutrition, abnormal development and a multitude of other diseases claim their many victims. And what a host of wounded do we have in this war of disease, many of whom suffer and long for death as a relief.

*Given at Three Rivers before the St. Joseph County Medical Society June 11th, 1926.

Is not the battle against disease much more imparative in its call than the battle of man against man? In a sense therefore the development of a new field of scientific endeavor is more important, so far as tangible results are concerned than the mere path findings of the pioneers. We must have the same keen accurate observation, honest critical judgment and agressive courage of our new convictions.

A few years ago mosquitoes, flies, ticks and fleas were considered by most people to be unworthy objects of serious study, but now it is known that they are important factors in the spread of various diseases. Preventive Medicine assumed a newer aspect in this respect. It is presenting a new frontier to those of us standing today on the "falls line" of Periodic Medical Examination of the individual particularly during middle life and more advanced age at which periods experience teaches us important organic changes are apt to take place. Those periodic examinations are not evolved for the purpose of helping the individual who is obviously ill, who knows he is ill and who knows that he should receive medical advice and treatment. Quite the contrary. The idea was developed for the benefit of the large number of people who appear healthy, feel healthy and believe they are healthy but in whom there may exist an abnormal condition which has neither manifested symptoms nor made itself felt in any manner, a condition which is potential source of trouble. The defect may be described as a weak link in the chain of an individual's physical well being.

It might be argued "better leave well enough alone" (how many physicians have after a cursory examination used that expression and the patient later have a serious malady and the physician a sad and cruel awakening because of his mistake). There is no more reason in such a course than it is to say the engineer is wrong who makes periodic examination of the important bolts, brakes and other vital adjustments of his engine to avoid breakdowns and resulting accidents.

Medical science may be obscure and hazy about many things, yet it is well equipped today to detect and check up on the early signs of mans' ills. How often have we heard people say "I would give anything to be healthy and physically happy again." We, as physicians, are capable of being good pathfinders for those who wish to avoid these thoughts and experiences of the "might have beens!"

The Saturday Evening Post, a few weeks ago, had a very timely editorial on "Completing the Sale." The editor pointed out that the custom of periodic health examinations is increasing with great rapidity, that millions of individuals can add to their health by the sheer will to observe expert and authoritative instructions. Are we as physicians ready to give this expert and authoritative instruction? I believe we are. Before we do that, we must be able to take a careful and painstaking history and make a complete and comprehensive physical examination. Only a few weeks ago a woman came into my office complaining of intestinal worms for the last year. Evidently she had had round worms (ascaris) for which santonin had been effectual, but she also had a continuation of her symptoms. A careful history and physical examination would have revealed to her attending physician (as it did to me) that in addition to her parasitic infection, she also had a tabes dorsalis with gastric crisis.

Other examples may be noted. The apparently healthy person may be examined and an incipient tuberculosis may be found, or perhaps a heart may not be so good as evidenced by shortness breath on exertion.

Malignancy in the intestinal canal may early have slight hemorrhoids as the first objective signs. Malignancy of the breast or of the uterus is noted where the individual does not suspect anything wrong.

A person may have a disturbed pupillary reflex which may warn us of the possibilities of syphillis confirmed by Wasserman test and other evidences and treatment started before the individual is incapacitated.

Many, many examples may be cited. Incipient goitre, diabetes and focal infections of various types are frequently found in a periodic examination of the apparently healthy.

PROCEDURE

How is this physical examination program to be carried on? It must be an educational feature in our own communities. Its real success will be revealed by word of mouth from the individual who has had this service to the one who is going to get it. This will depend upon how thoroughly the work is done. We, as doctors, must qualify to do it thoroughly and give the expert and authoritative advice in such a maner that the individual will know a good service has been rendered him. So by having one motto such as "Have a Health Examination by your Physician every Birthday," doing good work, giving good advice, the individual himself will soon carry the word to others and in this way our educational campaign

will get its start. Our newspapers, our magazines, our insurance companies, our factories, our luncheon clubs, women's clubs, in short all organized society will follow our leadership in extending this frontier in Preventive Medicine.

The manual now published by the Press of the American Medical Association and distributed by our own Michigan State Medical Society to its members should be utilized in advancing this movement. After this manual is read, committed and digested, let us turn to Osler, that Peer of Medicine, for the Master Word in Medicine. In Toronto in 1903, he delivered this address in which he said:

"Though a little one, the master word looms large in memory. It is the open sesame to every portal, the great equalizer in the world, the true philosopher's stone, which transmutes all the base metal of humanity into gold. The stupid man among you it will make bright, the bright man brilliant, and the brilliant student steady. With the magic word in your heart all things are possible—not only has it been the touch stone of progress but it is the measure of success in every day life—and the master word is WORK, a little one, as I have said, but frought with momentous sequences if you can but write it on the tablets of your hearts and bind it upon your foreheads."

We must work thoroughly and systematically. The blanks prepared by the American Medical Association may be used or similar ones used. Forms should be used. Through the practice of recording methodically fitness of persons passing through our hands, we will acquire an increasing skill and keenness in detecting early evidences of preventable and curable conditions. More important still the general employment of a thorough and complete method of inquiry by us will teach the laity to appreciate the value of good medical examinations in preserving their health and will encourage attention to details of personal hygiene on which continued health so often depends. They are asking us for advice and if we detect early pre-clinical conditions and locate focal infections, we are fulfilling some of our duties as physicians. We will be called upon to outline the proper use of food or water and to immunize against certain diseases. Vacation typhoid may be prevented by inoculation, small pox epidemics controlled by vaccination, diphtheria is robbed of its horror many times by the use of toxin antitoxin. Every individual having the periodic health examination should know and enjoy the benefits of these things.

In the language of the time honored comparison of the human body to an automobile —a periodic overhauling is not enough. The machine must not only be in the best mechanical condition possible, but must also have a driver trained to operate it intelligently. We as physicians have been good mechanics no doubt and have limited our attention to the machine but have neglected the driver except for very brief instructions. This means that we as physicians in addition to caring for the sick must assume responsibility for the instruction of the supposedly well in such details of hygiene as will prevent them from developing illness.

The examination and diagnosis of the apparently healthy no doubt requires more skill than in handling individuals requiring medical and surgical treatment. The details of the personal history may be filled out prior to the health client's call to our office. This will aid us in verifying certain answers and following certain leads obtained. Since this examination is by appointment sufficient time is had to conduct it in a careful and scientific manner. Some times further study and additional examination will be required to determine the precise location, extent and character of various disease processes or defects which may be revealed or suspected as the result of the health examination.

The summary is for the convenience of the future reference to the record and is designed to commit the physician to an expression of opinion as a result of his study of the history and examination of the health client.

The advice given should consist of written directions to the client for the correction or limitation of defects or errors discovered.

LYMPHANGIOMA OF TONGUE

Report of Case

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A white infant, 8 months of age was first seen by me April 12, 1926. Oral examination revealed a dry red tongue, considerably enlarged, hard, coated and apparently filling the entire mouth and holding the lips and teeth apart approximately one-half inch.

The tongue enlargement was evidently due, both to a cyst like swelling beneath the left side and also to an enlargement of the tongue itself. The examination of the organ could not well be made without considerable pain and discomfort for the patient, so she was removed to the hospital for treatment of the ranula and further examination.

Under light anesthesia the cyst was opened, a comparatively small amount of brownish material liberated and a Brophy ranula ring inserted.



Lymphangioma of Tongue.



Lymphangioma of Tongue

The surface of the tongue was then examined and found to be thickly spotted with reddish tufts of dilated blood vessels which were easily abraded and bled slightly, simulating closely the pathologic picture of lymphangioma as given by Butlin in his excellent book "Diseases of the Tongue."

The mother stated that the child had had an enlarged tongue at birth. It had remained abnormally large and was subject to frequent attacks of inflammation, such as the present one, during which the tongue would enlarge considerably, bleed occasionally and eventually subside leaving the tongue slightly larger after each attack. It was noted that the attacks occurred during the engorgement stage accompanying the eruption of the teeth, an occurrence which is also reported by Brault.

The attacks were accompanied by a rise in temperature, irritability and considerable difficulty in nursing. In fact the child could only be fed by pressing the tongue down with a cup and pouring liquids into the mouth.

The slight operative proceedure above mentioned had no beneficial effect. The tongue continued to enlarge, the temperature varied from 100 to 106. Oral feeding became impossible and the child was fed by gavage for the majority of the stay in the hospital. It was thought that an abscess might be forming in the tongue, so the tongue was opened but no improvement resulted. Three weeks after the original operation the child contracted erysipelas and died on the fourth day following.

Pathological examination of the tongue revealed large cystic areas filled with necrotic material; dilated blood and lymph vessels and considerable round-celled infiltration, corresponding closely to the pathological description as given by Butlin.

The treatment of this condition by radium has been found to be almost a specific as reported by New, Abee and others but due to the high temperature we were unable to apply radium for fear of the reaction which might follow.

Lymphangioma involving the entire tongue is a very rare condition and in a fairly complete review of the literature I have been unable to find another case reported in which the tongue attained such a size in a child of this age.

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EXPERIENCE WITH SCARLET FEVER ANTITOXIN

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Scarlet fever has not been as prevalent with us as in "former seasons and during the past winter and spring, the cases that have come under my direct observation and treatment, have been so mild that they did not think it serious enough "to make use of the remedy, in fact many cases no doubt have occurred and called no physician. In the face of such a condition it has been difficult and in many cases impossible to use the preventive. There is another condition that has made it more difficult, and that is the very indefinate assuarnce of the authorities as to its value, and the considerable expense attached to the use of it. However I did have the opportunity in two families, to use the antitoxin and with the following results:

On March 5th of the present year was called to visit a Mr. D —18 years of age, high school student, mho had a perfect symptomatic case of scarlet fever, throat rash, fever and all typical of the disease. The patient refused the antitoxin but there were four other members of the family who accepted the prohylactic, and the same was administered the evening of the fifth. Their home was small, and we had every reason to expect failure here, on the contrary, no one of them contracted the disease. The mother who was a frail, sickly woman remaining to care for the son.

On March 17th was called to see a Mr. G— age 37, spare built and a frail looking man. He had been in bed about six hours and appeared to be quite ill, temperature 104, respiration 22, pulse 120, eruption on face neck and upper chest, marked throat very sore, fauces and tongue red, thirst marked with nausea but did not vomit. As it was late in the afternoon decided to wait until morning for the eruption to become more definate, so took a culture from the throat and sent it to the State Laboratory. This was done for the reason, that during the past winter we have found, that quite a percentage of the streptococci throats carry a well defined eruption for 24 to 36 hours when it would disappear and you were thankful that you waited. So in this case I was unable to decide definately.

I did however have his consent to use the antitoxin on himself and the prophylactic on the other members of the family consisting of wife and one child 20 months of age, should it prove to be scarlet fever. Came morning, and with it the typical eruption of the disease covering face, neck, chest and body completely, with temperature still at 104. The antitoxin was administered at 9 A. M., March 18th, a full prophylactic to the wife and two mills to the child. On my return call the next morning, found the throat much improved, the eruption going down over the body regularly, temperature 102 and two days later temperature was normal and the eruption was disappearing from the body. At the end of the week the eruption was gone and there were no symptoms present at that time or again at any time. There were no symptoms of anaphalaxsis or reaction in either of the members of the family. I speak of this here, as at times in some cases there does occur serum sensativeness, and in those the patients should be desensitized before the full dose is administered. This man was discharged from quarantine April 17th, gone back at his work again in perfect health apparently for more than three weeks, I was relating my experience with considerable confidence, when without warning, May 13, I received an urgent call to see the man's wife, examination revealed a typical case of scarlet fever, eruption perfect, temperature 104 but without throat symptoms. Saw patient a second time May 14th, temperature, rash entirely gone except below the knees; temperature 100. Baby developed a slight eruption but without fever. Mr. G—had the disease nearly two months before and had been at work since April 17th and here are the other members coming down each on the same date. While the prophylactic is not warranted to protect more than six weeks or two months, and as they were all right for that length of time it seems that we should not complain very much. Also on account of the mildness of the attack; but it did not seem to me that they should come down the very same day, so I began to look around a little, and discovered that about a week before the last outbreak Mrs. G— had taken a worn rug off the floor that had not been removed during the fumigation, and cut it up into smal-

ler ones, so there you are. Personally I do not believe that these two cases carried the infection for about seven weeks after exposure, and then taken ill within 24 hours of each other. On the other hand I do believe in this particular instance the prophylactic did protect, for while the eruption was typical it lasted only two days in either instance, there were no throat symptoms, and no kidney or other pathology. Fully realizing that one or two cases do not signify very much in the final summing up of the use of any remedy, still, it all helps us to reach our final conclusion as to the value that it may stimulate further trial by others as opportunity offers.

In the summary we are taught two things: First it seems to save the patient from the dangerous complications so often following a severe attack of the disease, second, it brings the question of quarantine squarely up to the authorities. The extremely long period of quarantine now necessary by the danger of the disease, is especially hard in our industrial centers, where the loss in wages doubles the expenses to the public by reason of the care made necessary. In conversation with the head of the state health department recently, it was agreed that some ruling covering this conditions should be made, and no doubt would be, if the use of the antitoxin proved as effective as its friends hoped for. It looks to me that it might stimulate the use of the preventive by the public, if it were publicly announced from the office of the health department, that the successful use of the antitoxin would save from one to two weeks in quarantine.

AN IMPROVISED FRACTURE TABLE

DON H. DUFFIE
CENTRAL LAKE

For broken hip, Scudder* says the Whitman abduction treatment, by plaster cast, is "Infinitely better than the older, let-alone methods of immobilization by simple traction."

It is also more comfortable, while the frequent change of position made possible, considerably reduces the mortality.

But it is awkward to apply a plaster spica without a fracture table. The one here shown can be made, while the fracture waits, by any village blacksmith or plumber. It fastens to a table, occupies no floor space when idle, and is quite satisfactory.

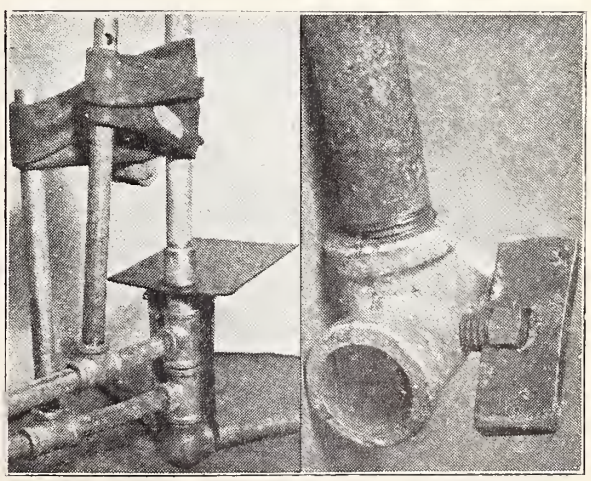
*Scudder: The Treatment of Fractures: 9th edition, p. 395.

Traction is maintained by the elasticity of short loops of old tire tube donated by the garage man. It is a rare assistant who can exert traction so relentless and unwavering as that cheerfully rendered by the lowly inner tubes.

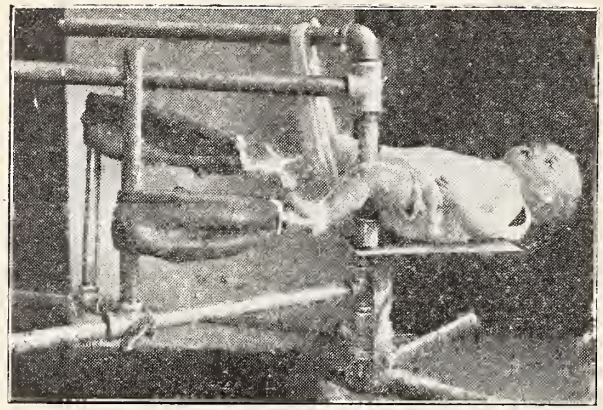
The pelvic support is 1/8-inch sheet iron, 7x10 inches. The remainder is assembled from 3/4-inch galvanized water pipe. The leg bars five feet long. The threads are reamed from the cross-piece of the T's so they can slide along the pipe. The traction arms thus cramp and hold, against the stretch of the rubber, at any point they are pulled to, like the sliding arm of a Balfour retractor. Our village blacksmith, opines the thing can be built for less than $10. With standard-set plaster and Gauze Crinoline, one can easily and cheaply roll his own plaster bandages, and know they are good.

For broken hip, the manipulation (condensed from Scudder) is:—Under full anesthesia, inward rotation of limb, then traction while supporting the hip, till limbs equal length: hypertension of thigh, slight flexion of knee (both favored by having traction horizontal only, not supporting the limb from dropping of its own weight.); complete abduction, both thighs; foot at right angles, both toes and sole pointing slightly inward.

The advantages of the Whitman treatment are made more available, wear and tear on the attending family considerably minimized, by enabling the encasted patient to turn himself over in bed without the aid of a wrecking crew. The illustration shows a crude counterpoise which in the one case where tried, worked to the marked satisfaction of all concerned.

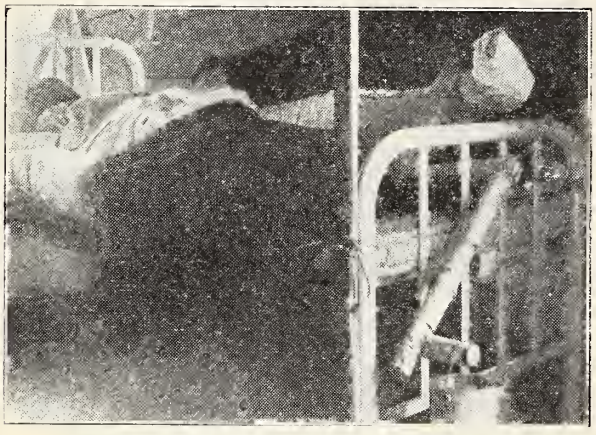


The "T"s slide along the pipe; friend blacksmith having reamed the threads out of the cross-piece. The pelvic rest is supported by a post of 2-inch angle iron, and screwed snug against it by the coupling on perineal bar.



Traction is maintained by the elasticity of old inner tubes. In fracture of femur neck, not to support injured limb favors desired hyperextension of thigh and flexion of knee.

(By posing doll instead of large figure, detail can be better shown in small illustration.)



A crude counterpoise, turning on hinges, which enabled patient in cast to turn in bed without help, greatly facilitating home care, and contributing to patient's comfort. The rope at the ankle passes over a pulley above, then to where he can reach and make it fast.

AUTOTRANSPLANTATION OF TOE FOR TRAUMATIC LOSS OF FINGER

Joseph E. Fuld, New York (*Journal A.M.A.*, April 24, 1926), reports the case of a man, aged 30, who while operating a bread-slicing machine, accidently amputated the distal third of the middle finger of his right hand. The wound being recent and clean, Fuld considered this a favorable opportunity to attempt grafting a toe to replace the missing finger. The day following the injury, he made an incision at the level of the head of the fifth metatarsal bone, transversely across the dorsum of the small toe of the right foot, deepened through, exposing the exterior tendon. This was cut across and the bone disarticulated. The incision was carried farther until the toe was left attached to the foot by only a pedicle plantar flap consisting of skin subcutaneous tissue, plantar vessels and flexor tendon. The dorsal skin edge of the stump of the finger was freshened. The end of the exterior tendon was sutured to the distal end of the extensor tendon of the toe, and the dorsal skin edge of the finger was sutured to the distal dorsal skin edge of the toe. This necessitated complete immobilization of the parts with the hand in constant juxtaposition with the foot, which was done by properly placed adhesive plaster and gauze bandages. The patient was placed in a Gatch bed. The second stage of the operation was performed as follows: The pedicle flap was cut across transversely, exposing the flexor tendon, which was also cut and sutured to the flexor which permitted flexion of the body to almost an upright position. This gave fairly comfortable position and relieved tension on the bandages. The cosmetic result was satisfactory, and sufficient function was obtained to permit the closing of the hand in complete flexion. Sensibility has partly returned. The color of the skin is practically the same as the color of the other fingers.

PRACTICAL VALUE OF EXAMINATION FOR ENDAMEBA HISTOLYTICA BY CULTURE

J. H. St. John, Washington, D. C. (*Journal A.M.A.*, April 24, 1926), records his experience with culturing amebas in four cases. In one case, the culture was positive in twenty-four hours, and the ameba recovered was identical with that observed in direct examinations. By subculturing every forty-eight hours, this ameba has been carried in culture for the last four months. In another case, the ameba has been maintained in culture for the last tnree months; in a third case, for a period of two months. In cultivation, a specimen of stool, 48 hours old, contained a moderate number of cysts of E. Histolytica. Motile amebas, E. histolytica, were recovered in culture at the end of twenty-four hours' incubation. The stool was placed in the icebox, and subcultures were taken after a lapse of eight days, when motile amebas were again recovered. St. John says that the movement and form taken in movements are sufficiently characteristic of the large strains of E. histolytica to aid materially in its identification. The rate of movement in culture calculated from that of four active specimens, is 27.9 microns to the minute, or slightly less than 1½ inches a day. So characteristic is the movement of E. histolytia than any entozoic-ameba obtained from man in culture which is found to move actively across the field of the microscope should at once incite a strong suspicion that the ameba in question is E. histolytica. St. John feels that it is probable that the application of the cultural method to surveys of the population will necessitate a revision upward of the incidence of amebas in man.

MODIFICATION OF PRESENT METHODS OF GASTRODUODENOSTOMY

The method described by Walter Hughson, Baltimore (*Journal A. M. A.*, April 1926), is offered only as a modification of the Finney-Haberer operation and in no case as a new procedure. Inversion of the duodenal stump is always a source of some concern, and inversion with subsequent reopening, as in the Finney-Haberer operation, does not seem necessary in all cases. This inversion uses up at lesat 2.5 cm. of the available duodenal length, and where mobilization is so important it seemed advisable to Hughson, therefore, to preserve the entire length of available duodenum for suture. Starting at the lesser curvature, the end of the duodenum is sutured to the stomach by any method the operator may prefer. When half of the circumference has been used in this way the duodenum is split in its long axis about 1 cm. from its attachment, for a distance sufficient to make the opening correspond exactly to that o fthe stomach. The small angular tab formed is trimmed off. The posterior suture being completed, the anterior wall is closed in the usual manner. The blood supply is not interfered with in any way and is entirely adequate. Opportunity has presented itself to use this method in only one clinical case, but the patient's post-operative course was perfectly smooth. There was no vomiting, no elevation of temperature, and no evidence whatever of retention. A roentgen-ray examination one week after operation showed a perfectly normal emptying time—less than five hours. Gastric analysis done at the same time showed a marked reduction in free acid and practically no regurgitation of bile.

PUBLIC HEALTH ACTIVITIES

Edited By

MICHIGAN DEPARTMENT OF HEALTH

FLOCCULATION OF SCARLET FEVER TOXIN AND ANTITOXIN

M. S. MARSHALL and ESTHER SHULTIS

Several years ago Ramon, in Paris, applied to diphtheria toxin and antitoxin the observation of Nicolle and several other workers to the effect that toxins and antitoxins, when mixed, will give mutual specific flocculation. He noted that there was a quantitative relationship involved. When different amounts of antitoxin were added to constant amounts of toxin all tubes showed flocculation in the course of time, but the first one to flocculate was invariably the mixture in which the toxin and antitoxin exactly neutralized each other.

This method should, theoretically, supplant the more cumbersome guinea pig method; as a matter of fact, it has certain disadvantages which make it of value only in a few phases of such titrations.

Somewhat over a year ago Dr. Dyer, of the Hygienic Laboratory in Washington, applied the Ramon technic to the titration of scarlet fever toxin and antitoxin, with seemingly very favorable results. The report was, however, preliminary only, and he has since found that the method is not as favorable as at first expected.

The Doctors Dick of Chicago have tried the method, and it has been tried in Rochester, New York, but thus far no favorable reports other than the one of Dyer, since qualified, have come to our notice. The advantages of such a method for the titrations of both toxin and antitoxin in the case of scarlet fever are obvious, since at present we have no satisfactory method for the titration of either substance other than extended controlled skin tests on human volunteers susceptible to scarlet fever.

Starting with Dyer's favorable preliminary report on the flocculation method, we began last fall to attempt a duplication of his results. The only antitoxin available was the concentrated material prepared under the direction of the Doctors Dick, but we had several Dick toxins, as well as some lots of our own.

In brief, the flocculation was found to be as striking as in the case of diphtheria toxin and antitoxin. Flocculation begins in the perfectly clear mixture with a gradual agglomeration of the interacting molecules until they finally interfere with the light and the mixture becomes turbid, then, as the particles increase in size there is an appearance of a suspended fine precipitate, and finally the clumps become large and flocculent and settle out.

Flocculation is, as in the Ramon diphtheria method, slow at room temperature, and more rapid as the temperature is increased. And the variable time limit before the appearance of flocculation seems to parallel the Ramon flocculation—it is sometimes slow and sometimes rapid, depending on the toxins used. At room temperature, the reaction may take as long as 24 hours.

However, the mixture of toxin and antitoxin giving flocculation first from the standpoint of time does not represent a neutralized mixture. In our experiments the amount of antitoxin was always too small—insufficient to neutralize the toxin present.

To determine the fate of the toxin we prepared filtrates from the flocculated mixture, and made dilutions of this for testing on people susceptible to scarlet fever to determine whether any toxin remained in the unflocculated liquid. Tests made by Miss Kendrick of the department showed that toxin existed free in the filtrate, although not of course in the concentration originally present.

Attempts to produce further flocculation by the addition of further amounts of antitoxin to the filtrate were fruitless. And calculation showed that the total of the amount of toxin which should be neutralized by the antitoxin used plus the amount which was found free in the filtrate did not account for all of the toxin.

There should be some free toxin left, and, since it was not in the filtrate, it must be in the flocculent precipitate. This precipitate is insoluble in saline, but by agitation is readily suspended into a homogeneous opalescent suspension. Some of this precipitate was washed with sterile saline and resuspended in saline to a quantity of about one-tenth of the original volume. This clear white material, innocuous except for the presence of toxin (provided, of course, it has not been washed out) was used in several attempts to produce immunity to scarlet

fever in susceptible persons, as shown by negative skin tests following the immunization period. We have thus far only several data on this, and these happen to be contradictory. Hence it is impossible to say certainly whether, first, the unneutralized toxin is mechanically taken down in the precipitate and is washed out, or second, whether it enters into the complex reaction of the flocculation process and is retained there available to produce an immunity, or third, whether it is closely bound in the reaction without being a true toxin antitoxin neutralization.

It would seem that some of the ingredients of the substance we loosely designate as toxin, other than the toxin itself—for the real toxin is only a small part of the broth which contains it—react antigenically in the production of antibodies, and that the flocculation of toxin and antitoxin in scarlet fever is specific for these substances, but not quantitatively specific for the toxin and antitoxin molecules.

It has been suggested that antitoxin made specifically from the toxin which is to be tested might give results. This would have to apply to toxin similarly made rather than identical to be of any value, but it will be worth trying.

It would also seem possible that a quantitative relationship might exist in the proportions giving initial flocculation, but that it is not a direct proportion.

As to the fate of the toxin in a flocculated mixture, the work herewith reported, preliminary as it is, throws some light upon it.

—C. C. Y.

A TYPHOID CARRIER

In 1900, John Doe had typhoid fever. Clinically speaking, he recovered from the disease and resumed his former occupation as an itinerant farm worker. All this happened before the days of state laboratory service, and before it was generally recognized that typhoid fever patients may keep on discharging virulent organisms after they appear to be entirely well.

After his recovery, Mr. Doe accepted a position on the A— farm in Oakland County. During the six years that Doe worked for the A— family and lived with them, four members of the household developed typhoid fever.

For some unknown reason, John Doe left the A— premises, and in 1907 went to the B— farm where he remained until 1910. The B— family consisted of three people, two of whom became ill with typhoid fever while Mr. Doe was engaged in agricultural pursuits on their behalf.

Mr. Doe did not acquire a deep sentimental attachment for one place and he lacked the education necessary for any specialized type of employment, so he continued to wander from farm to farm and to perform relatively simple tasks. It is known that between 1915 and 1925, he worked on no less than seven farms. Cases of typhoid fever occurred on five of these farms, the number of persons in each family who were attacked varying from one to five. In two of these places, there were typhoid fever deaths.

A small outbreak of typhoid fever in a rural community was investigated by the Michigan Department of Health during the month of August, 1925. There were five cases and one death. The first patient to become ill was a member of the J— family, and John Doe was working and living on the J— farm at the time. All of the other 1925 cases could be associated with Mr. Doe.

Sanitary conditions on the J— premises were far from ideal. The house was not properly screened, and flies were very numerous. The privy was poorly maintained, and so constructed that it allowed the free entrance of flies. The personal hygiene of the members of the household was below standard. The situation was an ideal one for the transmission of disease.

Twenty-two cases of typhoid fever, three of whom died, have been definitely associated with John Doe. The feces of this man, who is now under close supervision, have been repeatedly positive for typhoid bacilli.

The narrative of John Doe, and the trail of disease that has followed him since he had typhoid fever is of considerable interest. It is seldom that one is able to trace such a long succession of cases to a single carrier. Doe's history plainly brings out the need for better sanitation and personal hygiene in rural communities.

Such occurrences need not happen in the future. If every patient is isolated until two specimens of feces, negative for typhoid bacilli, have been obtained, the chronic carriers will be discovered, and can be kept under supervision so that they cannot spread disease.

—P. F. O.

MEASURING POPULAR INTEREST IN HEALTH

That popular interest in health has had an unprecedented growth within the last five years is too obvious to need proof. One glance at a newspaper with its health items and health columns, at a news stand with its health magazines, or at a club program with its health speakers is enough.

But as a concrete index of this rising en-

thusiasm, the educational work done by the State Health Department is interesting and significant. Since practically all phases—lecturing, pamphlet distribution, film and poster loan—are in answer to direct requests and are free of charge, their popularity is a close reflection of the general trend.

Requests for speakers show a steady increase. While the unrelated "health talk" is more or less a thing of the past, the lecture service of the department still remains one of the most valuable contact points with the public. Print cannot yet compete with persons when it comes to vividness of impression. Advertising has found no real substitute for the personal representative.

Enlarging the scope of the lecture to include consultation service has taken away the one real objection to lecturing as a means of popular instruction—that it was a "touch and go" system. Speakers from the State Department of Health now not only talk to a club on the topic selected, they sit down with the leaders of the group and discuss actual local situations and programs. Prompt, practical and personal application of general facts is the object, not the mere imparting of the facts.

During 1925 a total of 497 clubs, parent teacher associations, and school audiences were addressed, with a counted attendance of 47,696. Eight thousand of these people saw one of the department's moving picture films as well.

The same increased demand manifests itself in the number of bulletins sent out. Wholesale distribution of pamphlets may have been a shortcoming of earlier health boards, but the tendency has been pretty thoroughly outgrown. Printed material is sent from the Michigan Department of Health only upon individual request, or to a teacher, physician, public health nurse, or group leader who asks for it and agrees to supervise its distribution.

About 60 different bulletins are published by the department, covering practically every phase of public health and sanitation. Every precaution is taken to guard against indiscriminate distribution and waste. In spite of these precautions, however, the number of pamphlets sent out has mounted steadily. In 1920 it totaled 111,397, while in 1925 it reached 446,126. The entire number since 1918 when educational activities in the department were first differentiated, is close to two million.

"Public Health," the monthly bulletin of the department, has experienced the same apparently inevitable growth. There are no longer whole groups on the mailing list—such as mayors, village presidents, township, village and city clerks—out of the entire list of over 15,000 only 2,000, the health officers and public health nurses, get it without action on their part. In all other cases request must be made individually. There is one exception made for teachers who ask to use the bulletin in classes. All four of the state normals and many of the public schools utilize it in this way. In addition to every state in the Union, there are about 30 foreign countries on the mailing list.

That seeing is one of the shortest cuts to believing has been accepted in health education as well as in practically every other line of popular instruction. The increasing interest and requests for visual material, especially for school use, have led to the addition of an artist to the department staff. Posters for teaching health habits, for instructing prospective mothers, for emphasizing the important points in infant hygiene, and for illustrating the many other do's and do not's of personal and public health are in constant demand.

The attitude of the newspapers is one of the clearest indications of public interest in health matters. As one editor said, there are just two parennial topics, the weather and health. Anything pertaining to health that has the slightest news value, and some things that have not, are printed. And the editor has only one objective—to give the public what it wants. As an impartial indicator of sentiment, the newspaper is infallible. —M. D.

On May 4th the Michigan Department of Health Laboratories received a group of blood serums from the New York State Department of Health for examination by the Kahn test. This is the first of a series of several hundred specimens to be tested at this laboratory in a co-operative study in connection with the standardization of the Wassermann. This standardization study is being directed by Dr. Ruth Gilbert of the New York State Department of Health. The specimens for distribution to the various laboratories taking part in the study are prepared at the New York State Branch laboratory in New York City. Large specimens are collected and a portion of each sent to each of the co-operating laboratories. When the series of tests is completed, the Wasserman results obtained in the different laboratories will be compared with each other, with the Kahn tests results determined here and with the detailed clinical histories of the patients. —P. L. K.

Michigan facilities for the treatment

of tuberculosis are constantly improving. Since 1915 the number of beds for tuberculosis patients has increased from 950 to 2,355. The new beds are in county sanatoria. These are modern, or recently remodelled structures with X-ray and quartz lamp equipment, and all of the apparatus required to meet the present day conception of tuberculosis therapy. There are now six county institutions in the state which have full time medical superintendents. A law was passed by the 1925 legislature increasing the amount of state aid to county institutions. The new law has undoubtedly played a large part in the improvement of our methods for taking care of tuberculosis cases. —G. H. R.

In spite of the fact that examinations made in the Michigan Department of Health laboratory number from 16,000 to 18,000 a month, the number of specimens reported as unsatisfactory for examination is very small, only .2 of one per cent.

By urging the use of containers furnished by the laboratory, we try to decrease even this small percentage. When laboratory containers are used, however, the tops must be screwed on tightly, as otherwise they may come off in the mail and the specimens be lost. The blank which was sent with the specimen usually arrives loose in the mail.

Another problem solved by careful packing of specimens is that of breakage. This is confined largely to blood specimens for the Kahn test. Unless cotton is used to protect the end as well as the sides of the vial, the end may be cracked or broken off, and the specimen leaks out. One-tenth of one per cent of the specimens received is included in this class. —C. T.

There was a gratifying decrease in the number of cases of Pneumonia reported. This disease has been exceedingly high for the last three months but the number of cases reported for June was below the average and about 40 per cent below the number of cases reported last year.

Diphtheria showed quite a marked increase there being 84 cases more than were reported in May and 137 cases more than reported in June 1925, but still below the average for the past five years.

Whooping Cough showed a reduction from 645 cases in May to 566 cases in June and compared to 916 cases in June 1925.

Scarlet Fever while below May is still almost 20 per cent higher than it was in 1925 and is far above the average of last year.

Measles showed a very sharp drop from May but is still much higher than in June 1925. This disease which has been raging all the year is evidently on the downward trend.

No significant changes appear in the Venereal diseases. W. J. V. D.

PREVALENCE OF DISEASE

June Report

Cases Reported

	May 1926	June 1926	June 1925	Average 5 years
Pneumonia	590	302	508	392
Tuberculosis	628	454	592	503
Typhoid Fever	23	38	31	53
Diphtheria	349	433	296	446
Whooping Cough	645	566	916	697
Scarlet Fever	1,288	1,190	1,001	767
Measles	6,444	3,833	2,359	3,362
Smallpox	45	30	117	271
Meningitis	11	13	10	14
Poliomyelitis	4	3	6	4
Syphilis	1,212	1,282	1,332	918
Gonorrhea	729	892	897	904
Chancroid	4	3	13	16

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health

June 1926

	+	—	+—	Total
Throat Swabs for Diphtheria	.....	.....	....	1405
Diagnosis	37	404	....	.....
Release	82	118	....	.....
Carrier	6	742	....	.....
Virulence Tests	6	10	....	.....
Throat Swabs for Hemolytic Streptococci	.....	.....	....	574
Diagnosis	177	157	....	.....
Carrier	39	201	....	.....
Throat Swabs for Vincent's	13	427	....	440
Syphilis	.....	.....	....	6399
Wassermann	16	27	....	.....
Kahn	1157	5114	83	.....
Darkfield	.....	2	....	.....
Examination for Gonococci	237	1767	....	2004
B. Tuberculosis	.....	.....	....	678
Sputum	140	491	....	.....
Animal Inoculations	8	29	10	.....
Typhoid	.....	.....	....	163
Feces	9	63	....	.....
Blood Cultures	1	22	....	.....
Urine	.....	5	....	.....
Widal	10	53	....	.....
Dysentery	.....	.....	....	45
Intestinal Parasites	.....	.....	....	18
Transudates and Exudates	.....	.....	....	141
Blood Examinations (not classified)	.....	.....	....	681
Urine Examinations (not classified)	.....	.....	....	316
Water and Sewage Examinations	.....	.....	....	405
Milk Examinations	.....	.....	....	67
Toxicological Examinations	.....	.....	....	6
Autogenous Vaccines	.....	.....	....	6
Supplementary Examinations	.....	.....	....	531
Unclassified Examinations	.....	.....	....	639
Total for the Month	.....	.....	....	14518
Cumulative Total (fiscal year)	.....	.....	....	207199
Decrease over this month last year	.....	.....	....	3272
Outfits Mailed Out	.....	.....	....	13310
Media Manufactured, c.c.	.....	.....	....	578620
Diphtheria Antitoxin Distributed units	.....	.....	....	16430000
Toxin Antitoxin Distributed, c.c.	.....	.....	....	6640
Typhoid Vaccine Distributed c.c.	.....	.....	....	727
Silver Nitrate Ampules Distributed	.....	.....	....	16940
Examinations Made by Houghton Laboratory	.....	.....	....	1554

Our Convention City—Lansing—September 14-15-16, 1926

HISTORY OF INGHAM COUNTY MEDICAL SOCIETY

In February 1901 some of the leading physicians of Lansing abetted by the ladies who had charge of the Lansing City Hospital, called a meeting to organize a county medical society. The hospital needed the co-operation of a medical organization and the County had no representation in the State Medical Society.

This meeting was held March 1st, 1901 in the Council Chamber in the Lansing City Hall. About 25 physicians were present. Dr. F. W. Shumway acted as temporary chairman and Dr. A. D. Hagadorn as Secretary. A committee on permanent organization brought in a report recommending compliance with the constitution of the Michigan State Society; an initiation fee of one dollar and annual dues of two dollars and that the name should be the Ingham County Medical Society. This report was adopted except this name, which was changed to Central Michigan Medical Society and the annual dues to one dollar.

The officers chosen were:

President.....A. D. Hagadorn
Vice-President.....F. W. Shumway
Secretary.....L. Anna Ballard

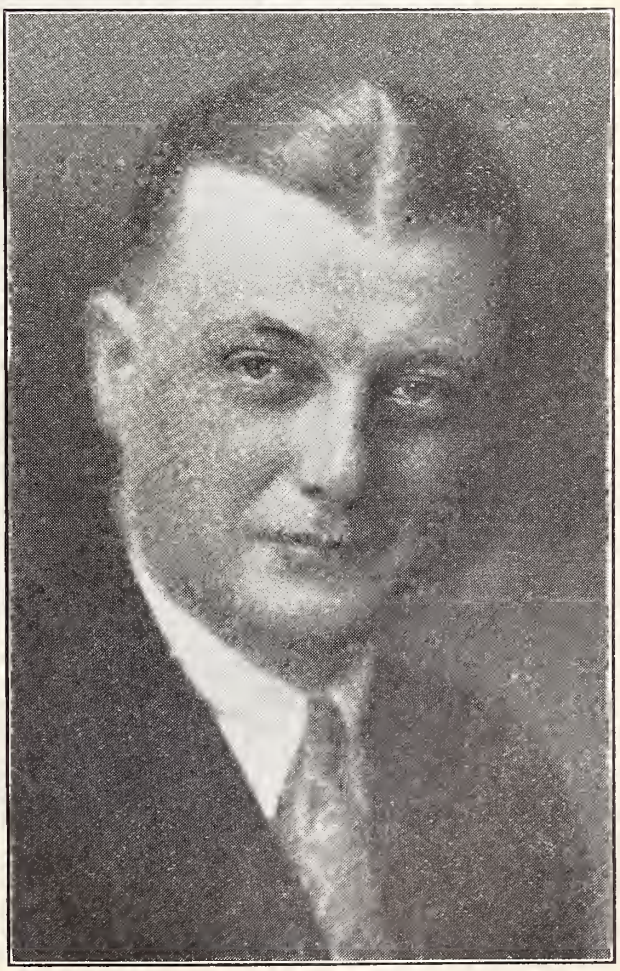
Eleven meetings were held during that year; ten in Lansing and one at Mason.

In January 1903 the society was chartered by the House of Delegates, Charter No. 40, signed by A. E. Bulson, President, and Andrew P. Biddle, Secretary.

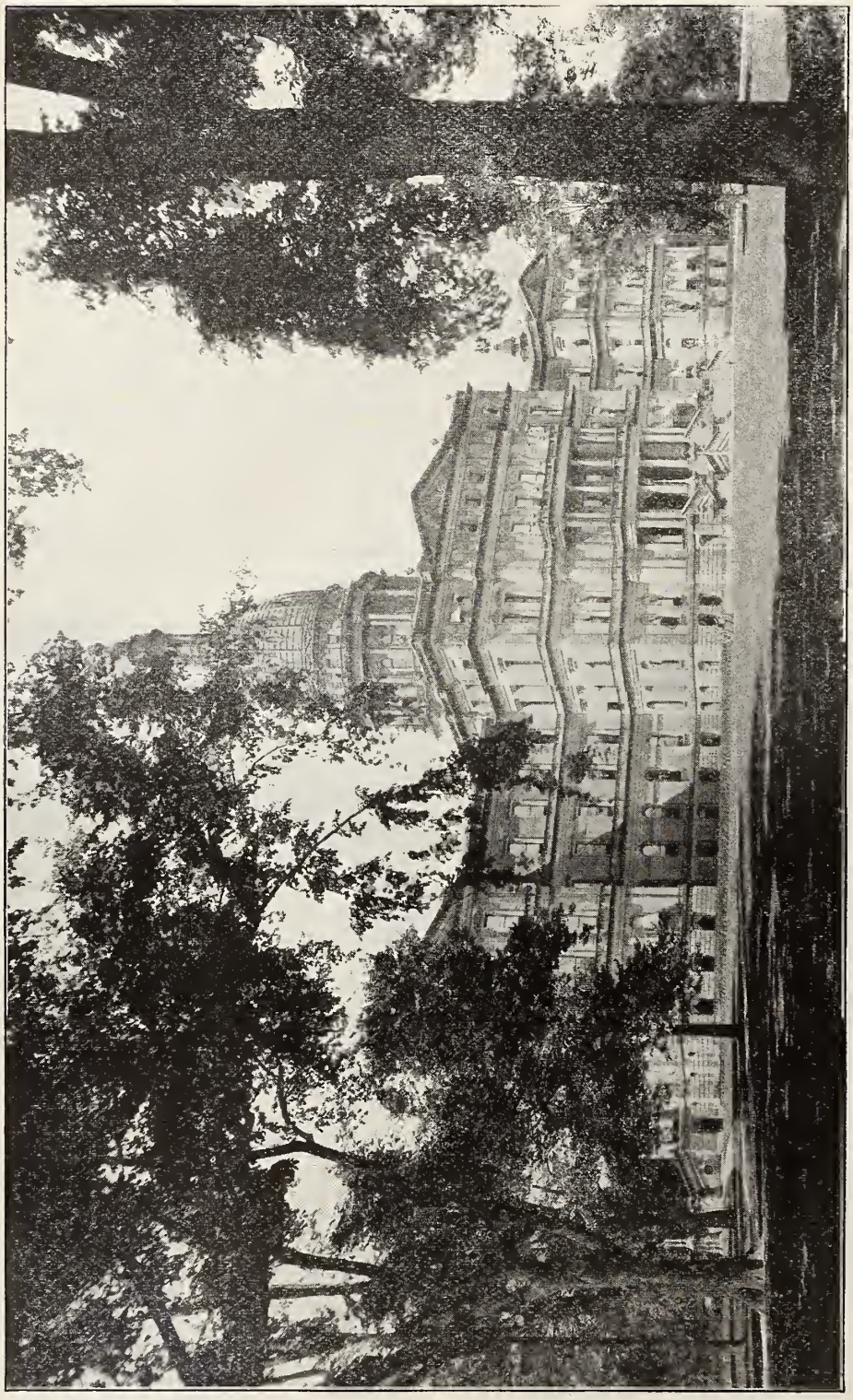
The contented pursuit of its duty by a harmonious organization has no history, consequently there is very little to add to the above. The Society has grown and flourished. Its constant aim has been to raise the ethical plane of medical practice, to increase the professional efficiency of its members, and to give to the public the good service that it is entitled to in return for the



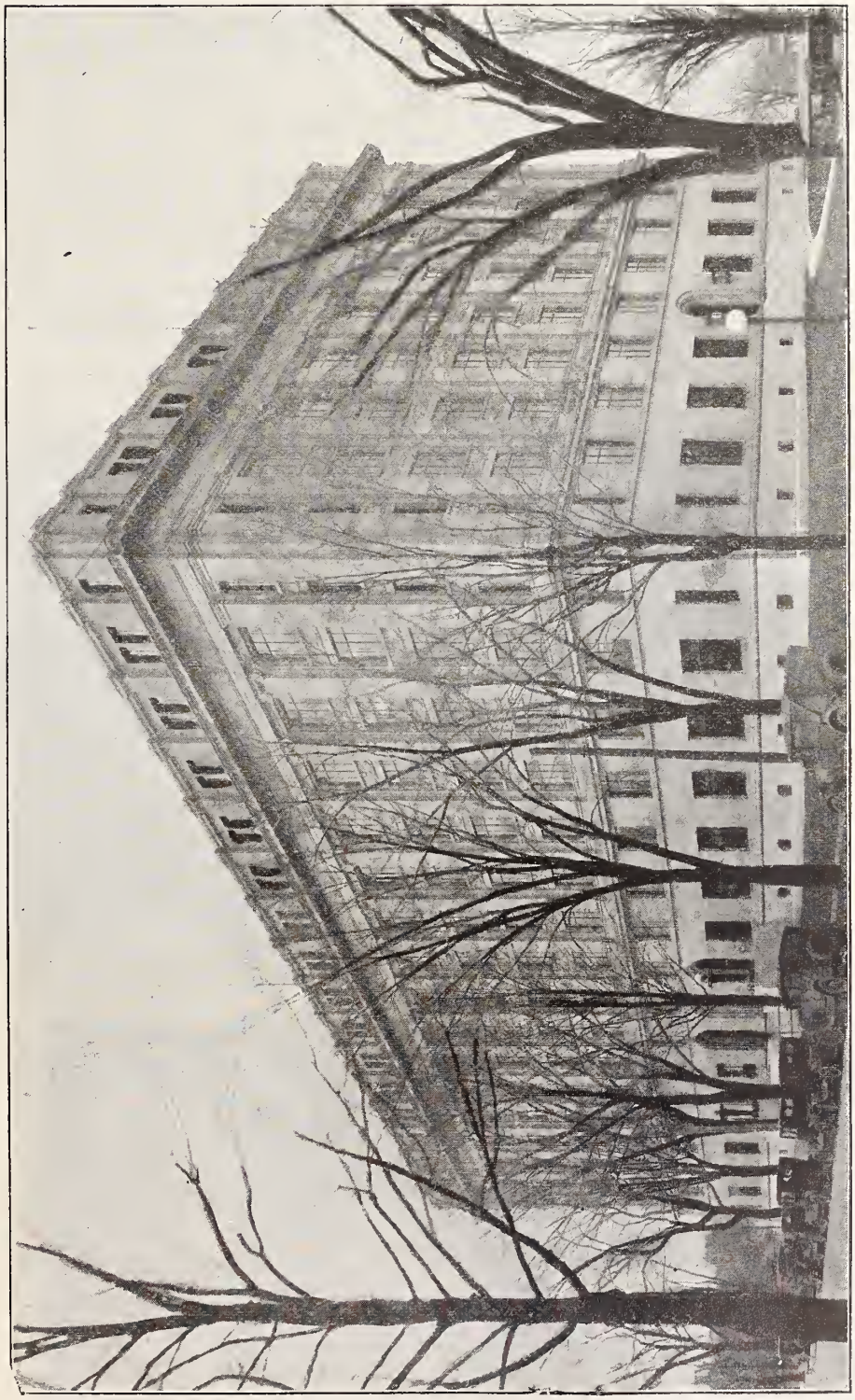
Dr. Fred L. Seger, President
Ingham County Medical Society



Dr. C. F. DeVries, Secretary
Ingham County Medical Society



State Capitol, Lansing



State Office and Library Building, Lansing

privileges and immunities that it has granted to the profession.

SPECIAL COMMITTEES FOR ANNUAL MEETING

PUBLICITY COMMITTEE

Dr. DeVries, Chairman

Dr. Cushman — Dr. Bartholomew
Dr. R. Miller — Dr. F. Jones

SESSION HALLS AND MEETING PLACES COMMITTEE

Dr. Carr, Chairman

Dr. Davenport — Dr. Olin
Dr. Owen — Dr. Towne

REGISTRATION COMMITTEE

Dr. Wiley, Chairman

Dr. H. Miller — Dr. P. C. Strauss
Dr. Wight — Dr. Welch

HOTELS AND ROOM ACCOMMODATIONS COMMITTEE

Dr. Christian, Chairman

Dr. Hart — Dr. D. Snell
Dr. Freeland — Dr. Gauss

ENTERTAINMENT COMMITTEE

Dr. Drolett, Chairman

Dr. McIntyre — Dr. Breugal
Dr. McNamara — Dr. Niles

RECEPTION COMMITTEE

Dr. Davey, Chairman

Dr. Osborn — Dr. Bartholomew
Dr. Haze — Dr. Ellis

AUTOMOBILE AND PARKING COMMITTEE

Dr. Weinburgh, Chairman

Dr. Randall — Dr. Brucker
Dr. F. Huntley — Dr. McCrumb

THE MICHIGAN STATE COLLEGE OF AGRICULTURE AND APPLIED SCIENCE

The first college of its kind in the world, the Michigan State College was founded in 1857 and through the 69 years of its existance has maintained a position of leadership among the leading colleges and universities of the United States. It is a "Land Grant"



The new library, completed in 1924, is modern in every way and completely equipped to serve education and research



Agricultural Hall houses the offices of the agricultural and extension divisions, class rooms and laboratories

institution and is supported jointly by the state and federal government.

During the past few years the college has undergone the most remarkable development in its history both from the standpoint of enrollment and new buildings and equipment. More than 2,800 students, including about 2,300 regular four-year men and women enrolled during the past year.

Adequate equipment in all divisions with courses which are adapted to meet the needs of the students give the college unusual educational advantages. Among the buildings recently constructed are the new library building, the new horticultural building, and the new home economics building. A new $600,000 chemistry building is now under construction. The new Union building which was opened last fall has filled a long-felt need as a recreational center for the students and has become a popular meeting place for student organizations and for recreational activities.

Courses of study are offered in Agriculture, Engineering, (including engineering administration) Home Economics, Forestry, Applied Science, Veterinary, Science, Liberal Arts, and Business Administration. Short courses in Agriculture, Extension Courses and summer school work bring hundreds of additional students to the college each year.

The campus has often been spoken of as the most beautiful college campus in America. The broad expanse of well kept lawn is studded with stately oaks, elms, maples, and pines. Winding drives and shady walks lead to the buildings which are constructed in an architectual style that lends to the natural beauty of the campus. The Red



A rustic stone dam raises the water level and makes possible delightful canoeing for a long distance up the river



The new concrete stadium, with a seating capacity of 16,000, is situated on the high ground south of the Red Cedar

Cedar river with its overhanging trees skirts the edge of the campus and lends an artistic charm for which it is famous.

LANSING WOMAN'S HOSPITAL ASSOCIATION OPERATING THE EDWARD W. SPARROW HOSPITAL

At a Whist party was first suggested the idea of calling the women of Lansing together to discuss plans for a hospital and at a meeting held in March 1896, more than 100 women attended.

In April the Women's Hospital Association was organized and with less than $500.00 Capital the work was started. A residence at 310 Ottawa was leased at $25.00 per month, and remodeled for hospital purposes. Rooms and a Children's Ward were furnished by Church Societies and Clubs. With subscriptions from physicians and business men an operating room was built under the direction of the late Dr. Rush J. Shank, and on May 20, 1896, the first operative patient entered the hospital.

Funds to carry on the work were raised by membership dues, Charity Balls and Bazaars. In the second year the City Council allowed $5.00 per week to the hospital, but despite this aid and the co-operation of physicians and surgeons in Lansing and surrounding towns, the Association at the close of the second year was in debt to the amount of about $1,400.00 and discouraged enough to close the hospital doors.

Through the efforts of a few women, however, a new Board of Control was elected and the work was reorganized in May 1898, on a practical business basis. A sufficient sum loaned by the women paid the debt, the city increased its aid to $15.00 and the work went on.

In 1899 the Association decided upon a larger building of its own and purchased on contract the James J. Mead property on North Cedar Street, making the first payment on November 15, 1898. Numerous donations aided in repairs and improvements, again rooms, wards and ward beds were furnished by individuals and clubs. The city increased its aid to $30.00 per week for care of city patients.

In every hospital one of the most important features is a Training School for Nurses and in the fall of 1899 the Woman's Hospital School of Nursing was established, with a class of four young women.



Sparrow Hospital

In 1912 the late Edward W. Sparrow gave to the people of Lansing the present Edward W. Sparrow Hospital building and grounds appointing a Board of Trustees who with the Woman's Hospital Association, Board of Control received from Mr. Sparrow the deed of gift.

The Sparrow Hospital was opened for patients in November 1912, and operated by the Woman's Hospital Board of Control.

The annual 1926 report of the Treasurer showed the total amount of $126,363.84, receipts and expense $128,900.04, and a deficit of $2,536.20. Special sources of income were a refund of $17,500 received from the Sparrow Estate for repairs on building; from the Community Welfare the sum of $11,890.00 and the Woman's Hospital Memorial Fund provided $1,346.05 for Scholarships for the Sparrow Nurses in training to secure College Credits.

The following is a status of the hospital as it is today:

EDWARD W. SPARROW HOSPITAL
GENERAL HOSPITAL
108 BEDS

STAFF:

Senior Members	37
Junior Members	6

DEPARTMENTS:

Operating Rooms	3
Emergency Room	1

Obstetrical Department
X-Ray and Light Therapy (Carbon Arc Light, Quartz and Diathermy)
Laboratory
Clinic
Metabolism
Historian (Full Time)

CASE REPORT 1925-1926

Number Admitted	1,881
Number Operations	1,114
Number Emergencies	352

TRAINING SCHOOL:

30 Students.
4 Months affiliation with the Chicago Memorial Hospital for Diseases of Children.
5-Year Course. Affiliation with Michigan State College.
15 Scholarships allowed by the Woman's Association.
Plans are being made for increasing the capacity of both the Hospital and Nurses Home.

THE BOYS VOCATIONAL SCHOOL

This institution under the name of "The House of Correction for Juvenile Offenders" was established in September 1856. Both boys and girls were cared for until about 1865, and then other arrangements were made for the girls.

By an act of the Legislature in 1859 the name of the institution was changed to the Michigan Reform School. Some years later it was again changed to the "Industrial School for Boys." In 1925, due to the change in purpose and management of the institution, the name was changed to "The Boys Vocational School."

The trend of the times in so far as vocational education is concerned has meant much for the school, due to the fact that men of a more practical turn of mind have been placed at the head and in consequence thus placing the institution among the leading of its kind in the country.

The institution has undergone more changes and has progressed more in the past five or six years than ever before in its history. The population approximates some 500 boys between the ages of 12 and 17 at all times.

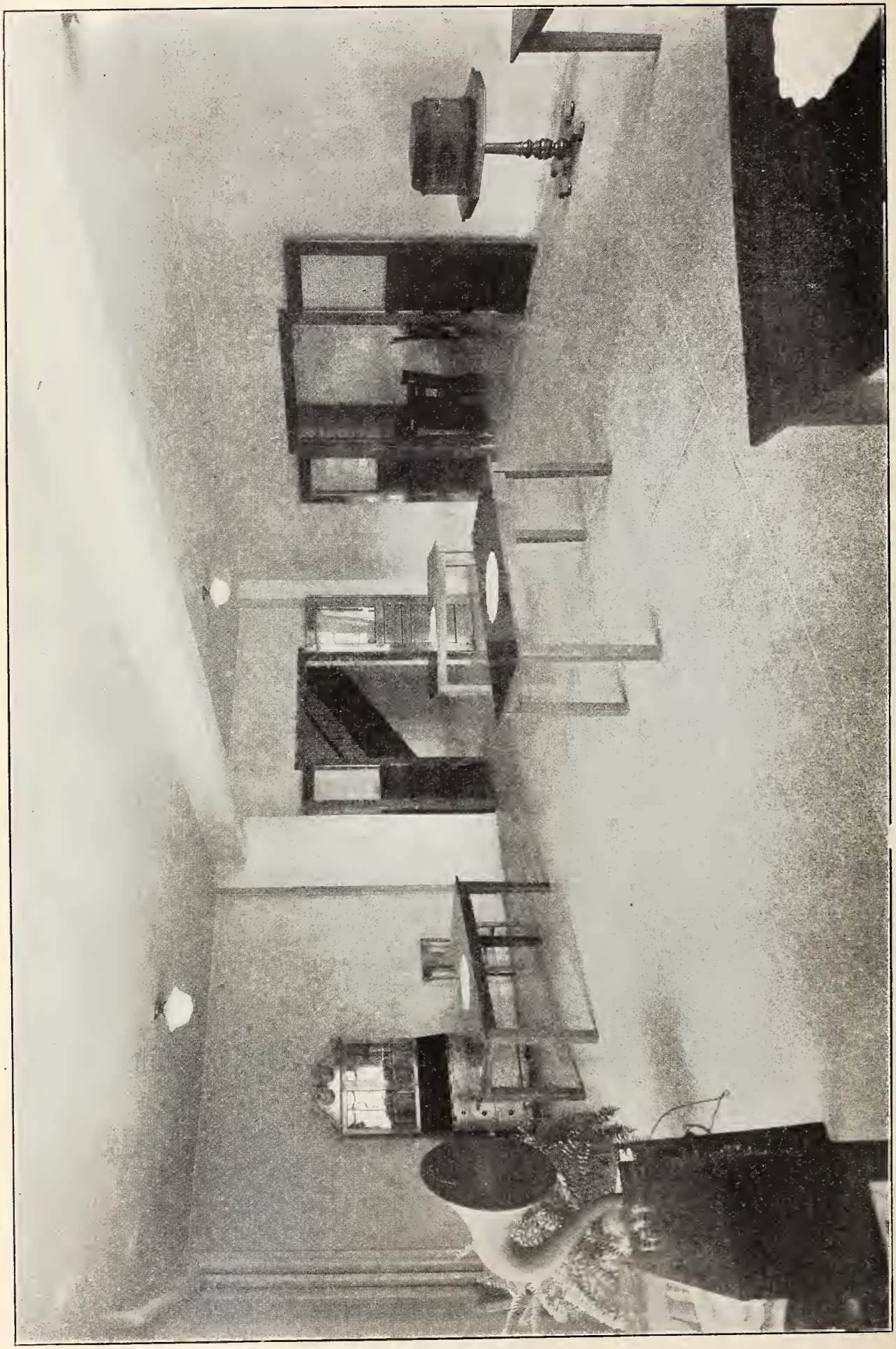
The boys were formerly grouped in cottages according to school grade regardless of age. Sixty or more boys were in each cottage in charge of a man, who was assisted by the teacher who taught in that building. The teacher's duty consisted not only of regular grade work but that of matron as well, such as distributing clothing once each week, censoring mail, taking care of the boys' money, supervising the barbering of those in her charge. (The barbering was often done in school hours and in the same room where classes were being held. Teachers taught a half day, 7 to 11:30, and had charge of the boys after supper each evening until bed time and also on Saturday morning and Sunday afternoon until after chapel.

A fence surrounded the institution and gates were kept locked at all times. Boys retired at 7 P. M. both summer and winter.

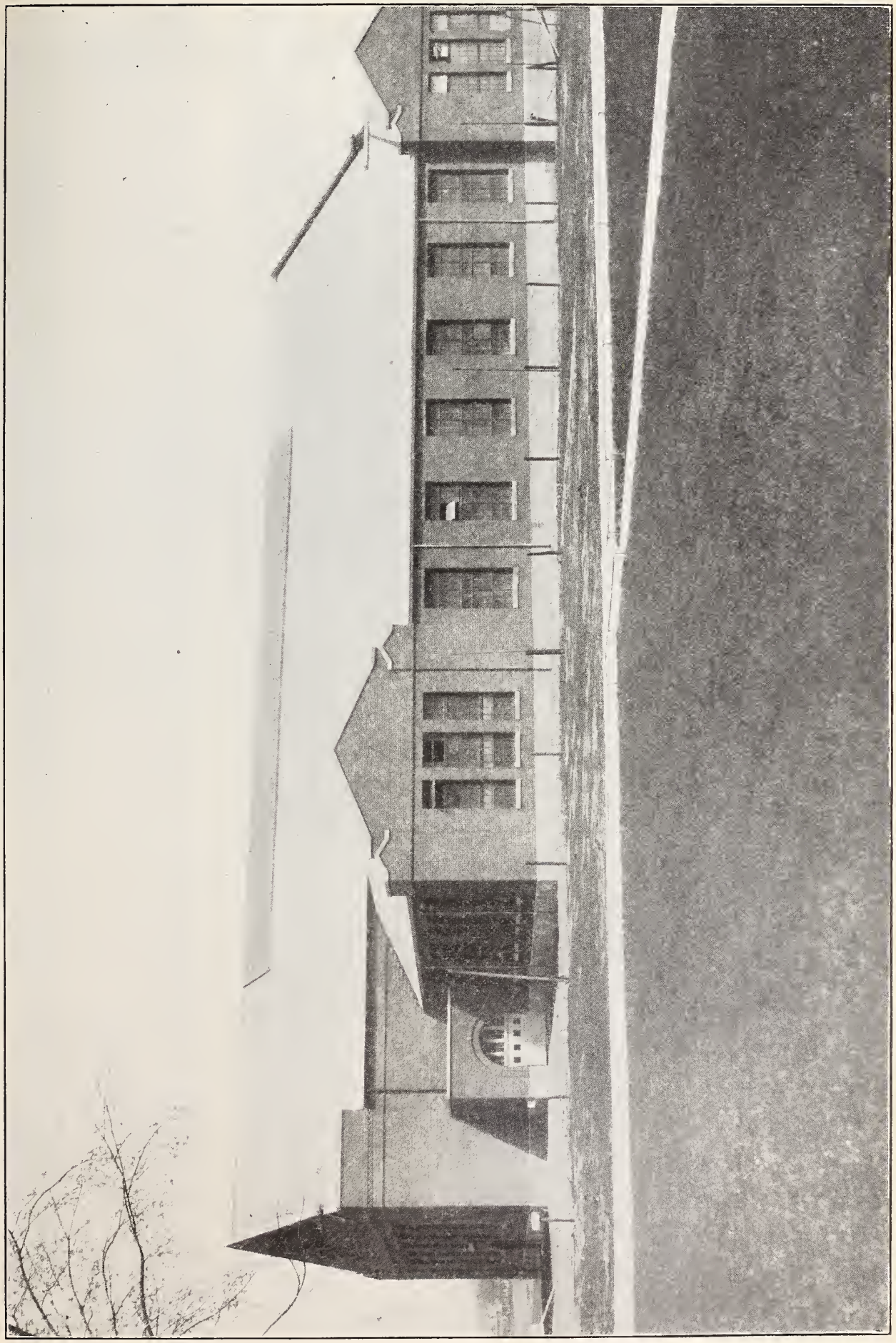
Buildings were old and in poor repair and suffered from the lack of proper sanitary features. A central dining room was maintained where the boys ate from bare wooden tables and sat on stools or wooden benches. There was no gymnasium and no playground equipment and the Library consisted of such books as the Superintendent could beg from those sufficiently interested in the school to donate books and magazines.

Boys were without supervision at night except when the night watch visited the dormitory at intervals of two or three hours. A few shops provided employment for the boys when not in school but all of these were handicapped by lack of equipment and the necessity of handling more boys than could properly be taken care of.

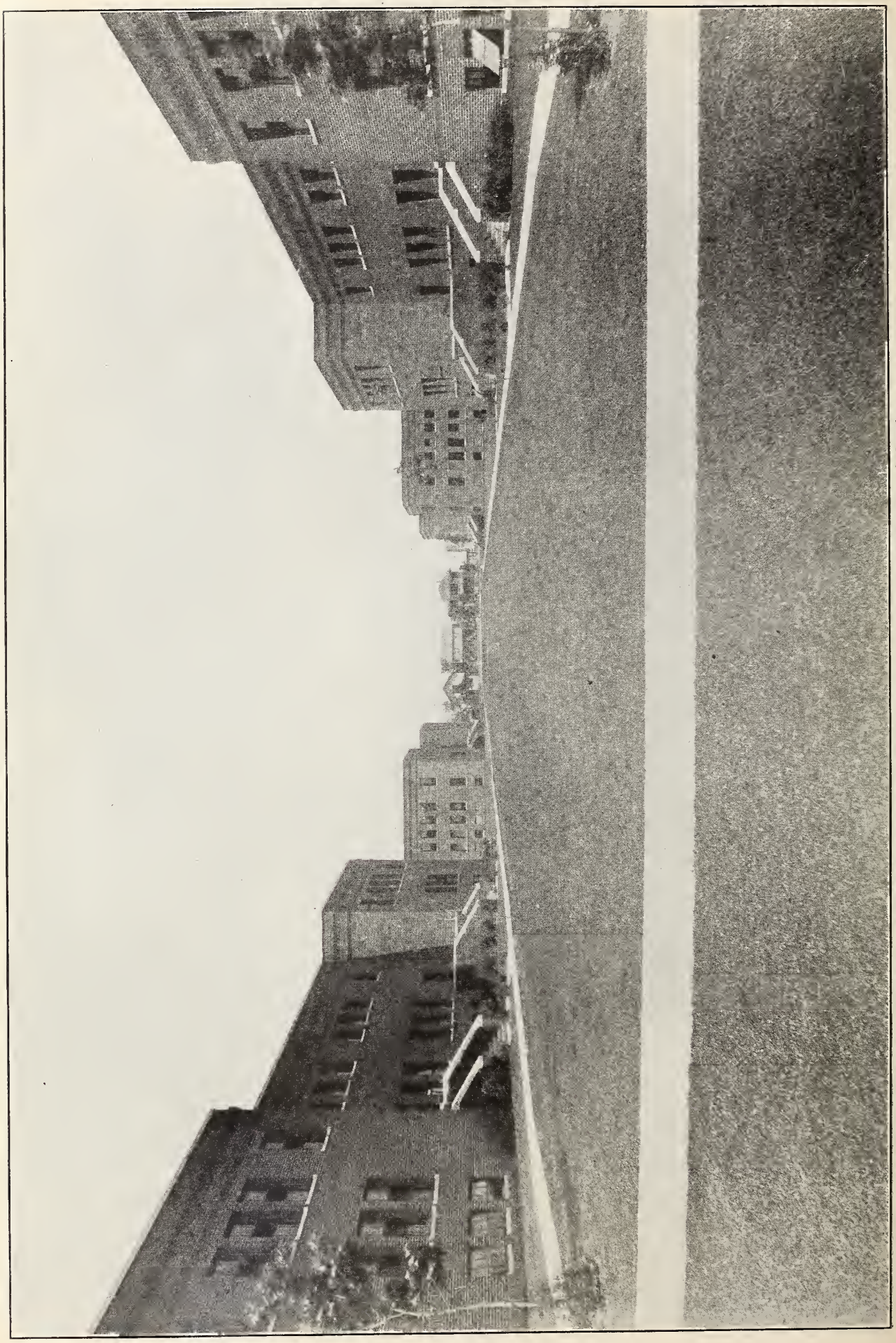
About the time of the present administration and under the supervision of Major Robert E. Marsh, a cottage system for caring for the boys was established and the inmates were grouped in cottages according



Boys' Living Room—Industrial School



Gymnasium and Field House—Industrial School



Front view of four new double cottages—Industrial School

to age. These cottage groups were placed in charge of a man and his wife who supervised the boys at all times when they were in the cottages. The old fire-trap buildings were torn down and eight new fire-proof buildings were erected to house the boys. These buildings were strictly modern in every sense. The most up-to-date sanitary and heating features were employed and each cottage has beside the dormitory and basement, a reading room, dining room, kitchen or pantry along with suitable living quarters for the officers in charge. Each cottage houses 30 boys. Clothing and shoes of a more desirable kind have been furnished the boys and night shirts and tooth brushes, hitherto unknown, were introduced.

Suitable playground equipment has been provided for outdoor work and recreation and baseball diamonds and football field have added much to the efficiency of that phase of the training. The physical training department is equal to any of its size in the state and with the completion of the new Field House, no school can compare. The men in charge are college graduates and splendid coaches and as a result of their influence, it can well be said of our various athletic teams that the boys who play on them act at all times in a gentlemanly manner and are good sportsmen.

The boys obtain their places on the teams through their scholarship, general attitude and progressiveness.

The new Field House contains a swimming pool, exercise rooms, cinder track and sufficient space for field work.

Two industrial buildings have been erected and equipped with such modern machinery as is necessary for the satisfactory instruction in the various trades offered the boys. In the Trade School department the following electives or placements are offered:—Machine Shop, Manual Arts, Printing, Electricity, Radio Laboratory, Shoe Shop, Barbering and Tailoring, Credits are offered in the Academic department for the total number of hours work done in any of these lines. A credit is also offered in agriculture and it is thought that the amount of practical work done by the boys in that line on the thousand acre farm is something to be envied by the average student taking that course in the public schools of the state. Being a trade school, the scope of subjects offered is greater than in any public school. Besides those afore mentioned, the following are given with credit: Auto Mechanics, Greenhouse Management, Cooking and Baking. The boys who graduate from the two latter courses command good wages as chefs and bakers and there are plenty of openings for them at all times.

Our machine shop has bench room for 50 boys. It is equipped with sufficient tools for that many machinists and has the following power machines: Ten lathes, one milling machine, three drill presses, two bench drill presses, one arbor press, one shaper, one grinder, one electric furnace and one power hacksaw.

The manual arts shop accommodates the same number of boys and its equipment is standard. The boys in these two shops do most of the repair work needed in maintaining the school.

A monthly magazine "The Vocational Enterprise" is published by the boys in the Print Shop and aside from this project most of the printing necessary for the crerical work in the various state institutions is done. This necessitates learning the art of composition as well as the operation of the Intertype and Linotype machines.

Five-tube radio sets were assembled by the boys in the radio laboratory for each cottage in the institution and for the cottages at Lapeer and Coldwater as well.

A four-chair barber shop is maintained and student barbers do all the tonsorial work for the 500 boys living here.

An equipment approximating some $13,000.00 has been installed in the new laundry. This is all electrically operated and is capable of turning out about 15,000 pieces a day. Darning machines, sewing machines and electric presses are used in connection with the laundry.

The institution hospital is located in a building by itself and has a 50-bed capacity. A resident physician is in charge at all times and is assisted by three graduate nurses. A housekeeper, an orderly, and a night watch are the corp employed there. A complete operating room for major as well as minor operations is in this building and the dental equipment compares favorably. Sick call is answered once a day and emergency calls are attended to throughout the day.

The educational department has been reorganized and the following curriculum relative to the elementary and Junior High School work, which was recognized by the State Department of Public Instruction, was put into effect.

Twelve properly qualified teachers are employed for the academic work, who have had wide experience in their professional line. The Course of study laid down by the State Department is followed and in addition to the regular grades, two special rooms are maintained to care for the backward and delinquent boys. One of these corresponds

to an Opportunity Room where students from the Junior High grades may receive additional help in any subject in which they may find themselves behind.

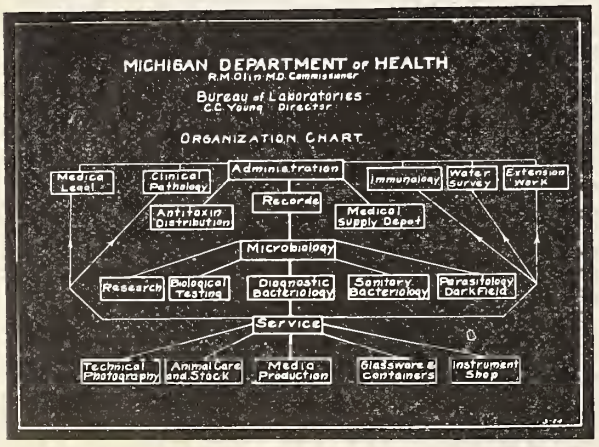
The Library is connected with the school department and consists of some 3,000 volumes. Approximately 2,500 volumes of this are boys fiction and the balance consists of up-to-date reference works. Under the present rigime 200 books are purchased each year.

THE MICHIGAN DEPARTMENT OF HEALTH LABORATORIES

At their fall meeting in Lansing, the physicians of the state are cordially invited to visit the Michigan Department of Health laboratories. Those who have not had the opportunity already should find it of unusual interest to see how the specimens they send in are handled—the method of entry, the technical procedure of examination for the various diagnosis, and the system of checking, recording and reporting the laboratory findings.

ORGANIZATION OF LABORATORIES

The Michigan Department of Health laboratories, comprise: 1, the central laboratories at Lansing; 2, an extension lab-



Laboratory Organization Chart

oratory at Houghton; 3, biologic laboratories at the Michigan Department of Health Farm a few miles outside of Lansing, and 4, the Western Michigan Division, to be opened in Grand Rapids in the fall for the use of the physicians of the western part of the state.

The work done in the various laboratories includes the strictly dianostic examinations; production, testing and distribution of biologic products; medico-legal examinations; and technical supervision, through the Medical Supply Depot, of furnishing medical, surgical, hospital and laboratory supplies to the various state institutions. It is the diagnostic and biologic divisions which are closest to the interest of the practicing physician.

GENERAL DIAGNOSTIC SERVICE

All specimens from the physicians of the Northern peninsula are handled through the extension laboratory at Houghton. The re-



Lobby, with Information Desk

mainder of the state is served through the Lansing laboratory.

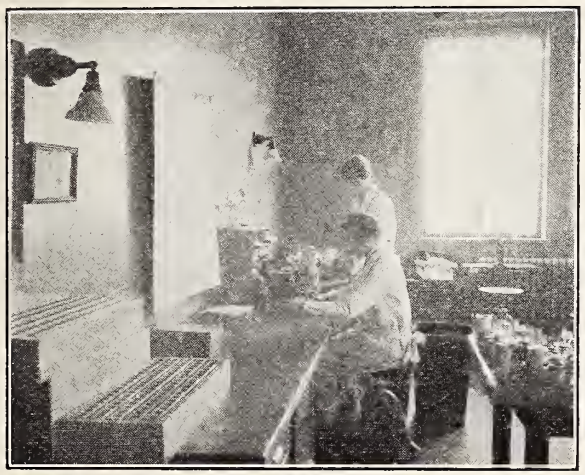
The number of specimens for laboratory diagnosis received in any one day's mails in the Lansing laboratory is approximately 500. These specimens are delivered to the mail entry room which is then locked to avoid any interruptions while the specimens are opened, classified and entered. Each specimen blank is stamped with the date and time the specimen was received and a record made on the entry sheet for that particular type of examination under the physicians name. These entry sheets are used in checking out all specimens when reported so that no specimen can be lost in the laboratory.

When the specimens are classified and



Director's Office

entered, they are delivered to the laboratories making the particular examinations indicated. The specimens of blood and spinal fluid for the serologic diagnosis of syphilis are delivered to the Serology laboratory; throat swabs for diptheria and other throat infections and specimens of blood and feces for the diagnosis of typhoid

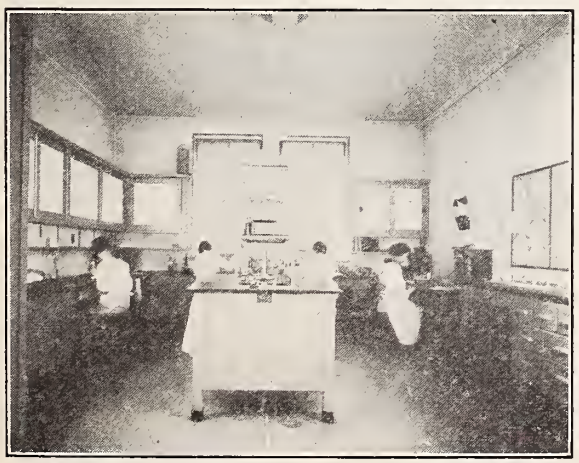


Mail Entry Room

fever and other intestinal infections are delivered to one of the Bacteriology laboratories; slides for the diagnosis of gonorrhea, sputum for tuberculosis and transudates and exudates for miscellaneous bacteriologic examinations are delivered to another Bacteriology; milk and water for bacteriologic examination to the water and milk laboratory; specimens of blood, spinal fluid and urine for physiologic chemistry and hematologic specimens, to the Clinical Pathology laboratory. Specimens of tissue for pathologic examination are sent to the consulting pathologist, Dr. James Davis, Detroit College of Medicine.

LABORATORY PROCEDURE

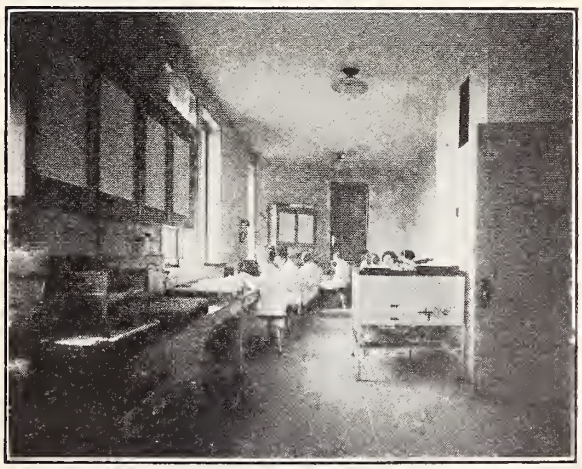
The number of steps in the procedure and the time required for a laboratory diagnosis



One of the Bacteriology Laboratories

vary with the type of examination. In the Serology laboratory, blood specimens are received from the mail entry room at about 9:00 and 11:00 a. m. They are placed in racks and numbered to correspond with the numbers on the accompanying blanks and centrifuged to obtain the clear serum for examination. The clear serums are heated at 56°C for 30 minutes when they are ready to be tested by the Kahn precipitation test. Each serum is mixed with a specially prepared dilution of standard Kahn antigen, shaken for three minutes and then examined for the presence of a precipitate. If a precipitate is found, the result is positive and the reading is made on the basis of +, ++, +++, ++++ according to the completness of precipitation. The Kahn tests are reported out the same day the tests are performed.

In the Bacteriology laboratories throat swabs are delivered whenever received. From each swab for diagnosis, a stained preparation is made, examined immediately and wired, if positive for diphtheria. Loeffler's and blood plate media are inoculated over night and the stained preparations from these cultures reported the next morning by about 9:00 a. m. Swabs for diphtheria re-



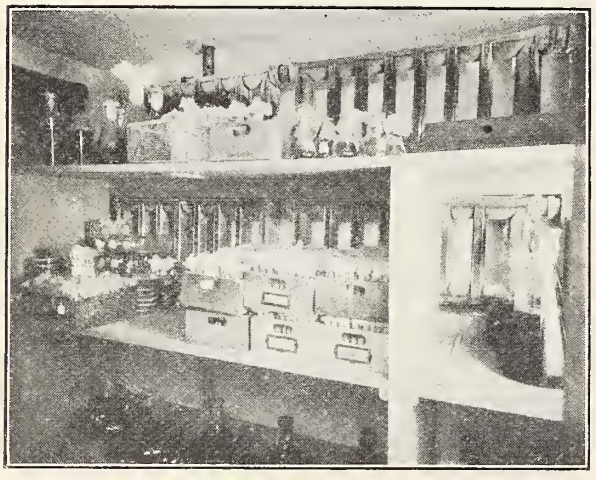
Serology Laboratory

lease or carrier stage are cultured on Foefler's medium only and positive cultures are inoculated into guinea pigs for virulence test when indicated.

A positive typhoid blood culture may be obtained after 24 hours' incubation, but it is not reported negative until after 72 hours. Feces for typhoid examination are cultured on differential plate media for bacteria of the typhoid and dysentery groups. The next day, suspicious colonies of bacteria are picked and transferred to special sugar media. The following day, any culture giving a reaction typical of B. typhosus or of the dysentery group is tested with its spe-

cific agglutinating serum and if the organisms are agglutinated, a positive finding is reported.

Slides to be examined for gonococci received before noon are stained by Gram's method, examined and reported the day after receipt.



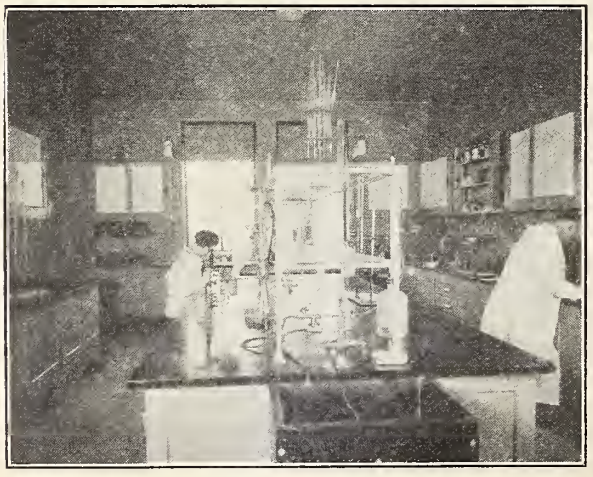
A Corner of the Refrigerator Room for Media Storage

Sputum specimens from cases of suspected tuberculosis are prepared for examination by sterilization and sedimentation in order to concentrate the organisms present. Stained preparations are made by Ziehl-Neelson's method and they are examined and reported the following morning.

The time required and the necessary technic for the examination of transudates and exudates depends entirely upon the individual specimen. When it is necessary to isolate and classify certain organisms, the time is necessarily greater.

For the examination of a specimen from a water supply suspected of contamination, 48 hours is required. A bacteriologic examination of milk is made within 48 hours.

Most examinations in the division of Clinical Pathology are reported the same day that the specimens are received.



Clinical Pathology Laboratory

Every effort is made to give the physician a correct laboratory diagnosis in the minimum of time compatible with accuracy. Suitable media for the culture and differential classification of organisms, proper care of animals for inoculation, preparation of glassware for use in the various divisions—all these are essential to the properly conducted diagnostic laboratory and they are given an important place in these laboratories.

In order to take care of any emergency specimens that may arrive in the laboratories at odd hours, a laboratory worker is on duty a certain part of every Saturday afternoon and all specimens arriving in the Sunday mail are classified and emergency examinations are made.

THE BIOLOGIC LABORATORIES

In the Biologic laboratories at the Department of Health farm are prepared and tested the biologic products for free distribution—diphtheria antitoxin, toxin-antitoxin, Schick test material, typhoid vaccine, nitrate in ampules, Dick test material, scarlet fever toxin for first, second and third immunizing treatments and scarlet fever antitoxin for therapeutic use only.



Extension Laboratory at Houghton

Probably the most interesting thing in the Biologic laboratories to the visiting physician will be the production of diphteria antitoxin. The steps in the process include production of toxin from the diphtheria bacilli; a series of injections of the toxin into a horse; bleeding of the immunized horse; ageing, concentration and refinement of the blood plasma and testing of the final product for potency, sterility and safety. While all of these steps cannot be observed in one visit, some particular one can be seen and an idea obtained of what the process involves.

Physicians are undoubtedly aware of the fact that the Michigan Department of Health has been distributing diphtheria toxin-antitoxin made in its own laboratories for two years and diphtheria antitoxin of its own production since June, 1926.

In addition to the biologic products which are produced in the Department of Health laboratories and distributed free, a supply of certain other products are kept in stock and sent upon request at cost plus 10 per cent.

SCIENTIFIC PERSONNEL

Perhaps the most important part of the administration of the laboratory service is the selection of the personnel. For the scientific work only university graduates with special training are employed. Members of the present staff were trained in a varied list of institutions which include Yale, Johns Hopkins, Harvard, University of Michigan, Michigan State College, Lawrence College, University of Wisconsin, Simmons College, Cornell University, Columbia University, University of Kansas, University of Vienna, University of California, University of Illinois, University of Chicago, Smith College, Lehigh University, Syracuse University and Northwestern University.



Biologic Laboratories

Since scientific advances are made constantly in laboratory diagnostic methods, each senior worker is expected to keep abreast with the literature, especially that which concerns his own field. For this purpose, the leading scientific journals are available in the library of the Michigan Department of Health. To correlate the research investigations carried out by workers throughout the world, scientific conferences of the director and personnel are held from time to time. To what extent scientific research within the laboratories is encouraged is indicated by over 50 scientific contributions from the staff since 1922.

WESTERN MICHIGAN DIVISION

With the regularly increasing number of specimens from every part of the state there has been an increasing congestion of routine diagnostic work at the Lansing laboratories. This will be partially relieved by the extension laboratory at Grand Rapids, where specimens from the western division of the state will be examined. Not only will this extension laboratory lighten the load at the Lansing laboratories, but it will make possible a quicker service in that section of the state. As soon as it is definitely known when the laboratory in Grand Rapids will be in operation, the physicians will be notified by letter and properly directed containers will be sent them.



Horse Barn at the Farm



Diphtheria Antitoxin Concentration Laboratory

ST. LAWRENCE HOSPITAL—MEMBER OF THE CATHOLIC HOSPITAL ASSOCIATION OF UNITED STATES AND CANADA

St. Lawrence Hospital was first conceived in the mind of the late and regretted Lawrence Price, who had secured the con-

sent of the Sisters to establish, sooner or later, a hospital in the city of his choice.

The organization of St. Lawrence Hospital dates its beginning to 1920, when, on the invitation of Reverend John O'Rafferty and with the assistance of Mr. Edward Ver Linden, the Sisters of Mercy took up temporary quarters in this city, at a former Sanitarium at the foot of Washington Ave., on N. Willow St.



St. Laurence Hospital

With a capacity of 28 beds, this Institution opened its doors to Influenza patients, while the epidemic was at its height. The first 11 patients were admitted on Feb. 2, 10 more were admitted on the 3rd, and eight on the 4th. For weeks, the hospital registered none but influenza and pneumonia sufferers. Finally, the entire building was prepared to receive surgical and obstetrical patients, as well as medical.

Gratifying it is to note that the citizens of Lansing at large have ever been appreciative of the efforts of the Sisters in behalf of their sick. In February 1920, the City Council, in behalf of its own honorable body, and in behalf of Lansing, passed a special resolution commending St. Lawrence Hospital and expressing its appreciation for the care of the sick in the recent epidemic.

Patronage seemed ever on the increase. At times, the greatest ingenuity had to be exercised in order to accommodate a greater number of applicants; still the demands for larger quarters were imperative. But one conclusion could be reached—the erection of a new building.

In 1922, through the influence and capable leadership of Edmund C. Shields, attorney, a campaign for funds was propitiously inaugurated. His Excellency, Governor Groesbeck, endorsed the movement; leading citizens seconded the plans of the magnetic leader, and one and all heartily co-operated, until the magnificient sum of $207,000.00 was subscribed.

With a deep sense of gratitude, the Sisters of Mercy at once put their shoulder to the task of providing a 100-bed hospital, fully equipped, and absolutely modern. The plan designed by a Lansing architect, S. D. Butterworth, was accepted, and bids were let, resulting in the assigning the general contract to Reniger Construction Company of Lansing. Plumbing, to Wheeler Bloney Company, Kalamazoo, Mich., and Electrical contract to the Barker Lowen Electric Company of Lansing.

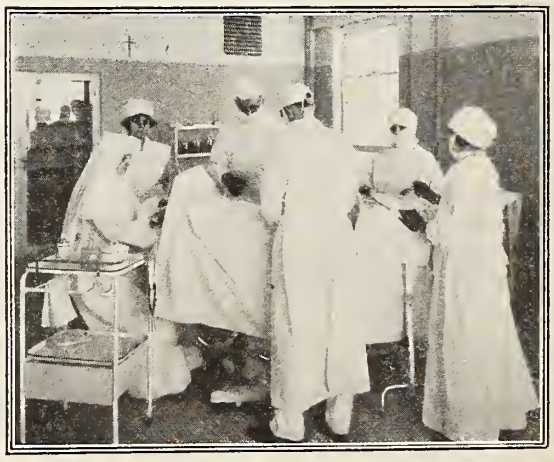
The corner-stone of the new St. Lawrence was laid with appropriate ceremonies on April 15, 1923, on the site graciously donated by Mr. and Mrs. Joseph Gleason. This site, with a frontage of 16 rods, occupies about four acres of land on Saginaw St., in the vicinity of Westmoreland, and extends to Oakland St.

The patients treated in the old building from Feb. 2, 1920 to March 10, 1924 numbered 4,047. The democratic name of "Wilson" heads the list of the boys who first saw the light in the new building. Although the date set for admittance of patients in general had been fixed to March 10, Babe Wilson was privileged to make himself heard an hour before the clock struck 12.

St. Lawrence Hospital, a monument to the generosity of the Lansing people, is an imposing, fireproof structure, five stories in height, exclusive of the covered roof garden and basement. The exterior walls are of "Irontex" face bricks, trimmed in stone.

The portico is well ornamented with artistic designs, one of which is the "Shield of Mercy." Marble steps lead to the well furnishd lobby on the left, and to the office on the right.

The first floor contains administration offices, the Sisters' quarters, the chapel, the medical library, the pharmacy, the laboratory, the X-Ray department, the Chaplain's and the Interne's suites.



St. Laurence Hospital Operating Room

The basement is utilized for the culinary department and dining rooms wholly inviting. Here is the wide, light kitchen with tile floor and a score of appurtenances. Special rooms are in use for the preparation of vegetables and for the pastry. The store rooms adjoin the kitchen and so does the refrigerator with several available compartments. An electric dumbwaiter connects the kitchen with the tray rooms on the different floors.

A tunnel leads from the basement to a separate building: that of the heating plant, the refrigerating system, the water softener and the laundry. Heat is obtained from oil. Two 95 H. P. Water Tube Boilers are available, equipped with improved Turbine oil burners. Here, the Kohler system is installed to provide light and power as an emergency, should the city lines fail for an instant.

The floors, excepting that of the operating rooms and service rooms, are of cork, affording quietness and easy velvety tread. Another detail to insure quiet, is that of the rubber roller replacing the usual brass door latch.

The Holtzer-Cabot call system signals the nurses. Night lamps are specially designed for the convenience of the nurse and the comfort of the patient. Access to the floors can be had by an easy stairway in the middle of the corridor, or by a Push Button Passenger Elevator. Each corridor leads to a sun parlor, where, as in many rooms, there is evidence of well-selected gifts, and liberal generosity.

The second, third, and fourth floors, are devoted to patients. Chosen sections are partioned off and used for specialties, such as the Nursery, the Maternity Department, the Children's wards, the operating rooms, the White Line Sterilizing plants, etc.



The Hotel Olds—Lansing's new two million dollar hotel

The Chapel of our Lady of Mercy and the St. Lawrence Hospital were solemnly dedicated by Rt. Rev. Michael James Gallagher, D.D., on April 1, 1924, admidst a great concourse of people.

With all facilities afforded, it was meet to organize the Staff and fulfill all requirements of the American College of Surgeons. The first general meeting was held on June 10, 1924, at which 37 physicians were present. The Executive Committee was made to consist of the following:

Chief of Staff,
Dr. B. M. Davey.
Vice-Chief,
Dr. W. E. McNamara
Head of Medical Department,
Dr. D. A. Galbraith
Head of Obstetrical Department,
Dr. F. J. Drolett

Head of Pediatrics Department
Dr. L. C. Towne
Head of Eye, Ear, Nose and Throat Department,
Dr. A. E. Owen
Head of Urology Department,
Dr. F. J. Cushman
Head of Surgery,
Dr. E. I. Carr

The following month, Dr. L. A. Ludlum was secured to take charge of the clinical laboratory, and accepted as house physician for a 12-month period. March 1, 1925, Dr. C. F. Davenport was given charge of the X-Ray department. The hospital being now approved for the service of interns, a student from the University of Michigan was the first one accepted for the term 1925-1926.

In the course of the first year's regular operation of the organized staff, a representative of the American College of Surgeans made an official visit to St. Lawrence Hospital, eliciting the following report from Dr. M. T. MacEachern, director of hospital activities:

"Your Institution, with its advantages, should be able to fulfill in every degree, all the functions required of a hospital in the present day, not only in the right care of the patient, but carrying on of teaching, training, and educational work, the promoting of scientific medicine, and contributing information for hospital development generally."

St. Lawrence Hospital School of Nursing, attached to the Hospital, was organized in August, 1920. It is accredited by the State Board of Registration of Nurses and Trained Attendants, and is subject to that body in matters of instruction and admission requirements. All graduate nurses take the State Board examination and become Registered Nurses.

MICHIGAN SCHOOL FOR THE BLIND—LANSING

The Michigan School for the Blind was located on its present site in 1881. The grounds comprise 45 acres of which a little over 20 acres is campus proper with beautiful trees, good walks and drives and well drained, a splendidly located school.

The school is a public school and offers beside the common and high school departments splendid opportunities for boys and girls whose vision is defective to obtain not only stimulating but an especially helpful training. The high school course is so fairly the equivalent of the high school course provided in any city of the state that the graduates are accepted in any of the colleges of the state as well as the university. Six of the graduates of last year entered the freshman class at the Michigan State College in September and are doing extremely good work.

The courses offered other than the literary course are music both vocal and instru-



Michigan School for the Blind

mental, piano tuning and repairing, broom making, manual training, art fibre furniture and brush making, cooking and sewing, chair and furniture repairing, shoe cobbling and a complete course in typewriting and dictaphone work.

The opportunities of the school are free to any boy or girl who is blind or whose vision is so defective as to make it impossible for them to be trained in the ordinary public schools of the state. No expense is attached other than for clothing and transportation and in case of indigent students the state takes care of this also. There is a compulsory education law in Michigan requiring blind or partial sighted children to attend school, but scattered over out-of-the-way places are many children who should be here. Any citizen knowing of such a child can do a real public service and help one who needs a helping hand if he will notify the school of any such children in his locality who are not receiving the proper education.

The purpose of the school is to make helpful, efficient and respectable citizens out of boys and girls who are so handicapped. The state has been very generous in its appropriations and extremely sympathetic and helpful in its efforts to alleviate the situation in which these young people find themselves because of their defective vision.

Preliminary Announcement Program, 106th (61) Annual Meeting of the Michigan State Medical Society, Lansing, Michigan, Sept. 14-15-16, 1926

OFFICIAL CALL

The Michigan State Medical Society will convene in its annual session in Lansing, Sept. 14, 15, 16, 1926. The order of business as provided by the Constitution and By-Laws, and the official program will be observed.

C. G. Darling, President.

J. B. Jackson, Council Chairman.

Attest: F. C. Warnshuis, Secretary.

CONDENSED SCHEDULE OF MEETINGS

September 14th.

9:00 a. m.—Council Meeting.
10:30 a. m.—House of Delegates.
12:00 m. —Council Meeting.
2:00 p. m.—House of Delegates.
6:00 p. m.—Council Meeting.
7:15 p. m.—House of Delegates.

September 15th.

9:00 a. m.—Combined Section Meetings.
1:15 p. m.—Combined Section Meetings.
4:00 p. m.—General Meeting at State College, East Lansing.
6:00 p. m.—Dinner and Entertainment at State College.
8:15 p. m.—General Session.

September 16th.

9:00 a. m.—Sectional Meetings.
12:00 m. —General Session.
1:15 p. m.—Section Meetings.
4:15 p. m.—Adjournment.

MEETING PLACES: Old's Hotel and Elks Temple.

HOUSE OF DELEGATES

J. E. King, Detroit, Speaker.
J. G. R.Manwaring, Flint, Vice-Speaker.
F. C. Warnshuis, Grand Rapids,Secretary.

FIRST SESSION

September 14th, 10:30 A. M.

1. Call to Order.
2. Report of Credentials Committee.
3. Roll Call.
4. Speaker's Address.
5. President's Address.
6. Report of Council.
7. Appointment of Reference Committees.
8. Election of Nominating Committee of Five. "No Two Members Shall Be from the Same Councilor District." The Duties of the Nominating Committee Are:
   (a) Supervise the Ballot for President.
   (b) Nominate.
   1. Four Vice-Presidents.
   2. Place of Next Annual Meeting.
   3. Three Delegates and Alternates to A. M. A.
9. Reports of Standing Committees.
   (a) Public Health.
   (b) Legislation and Public Policy.
   (c) Tuberculosis.
   (d) Venereal Prophylaxis.
   (e) Medical Education.
   (f) Civic and Industrial Relations.
   (g) Nursing Education.
   (h) Standardization of Insurance Blanks.
   (i) Delegates to A. M. A.
10. Unfinished Business.
    Amendments to Constitution Lying Over Under the Rules.
11. Resolutions and New Business.
12. Recess.

SECOND SESSION

2:00 P. M.

1. Call to Order.
2. Reports of Reference Committees.
3. Unfinished Business.
4. New Business.
5. Recess.

THIRD SESSION

7:15 P. M.

1. Call to Order.
2. Reports of Reference Committees.
3. Report of Nominating Committees.
4. Election.
   - (a) Four-Vice Presidents.
   - (b) Councilors, 4th, 5th and 6th Districts.
   - (c) Delegates and Alternates to A. M. A.
   - (d) Place of Next Annual Meeting.

NOTE—Councilors are nominated by the delegates from societies comprising Council Districts for which Councilors are to be elected. By our By-Law provision the Secretary will call a caucus of the delegates of Councilor Districts concerned.

5. Unfinished Business.
6. Adjournment.

DELEGATES AND ALTERNATE DELEGATES HOUSE OF DELEGATES

NOTE:—Delegates in Boldface type.
Alternates in Lightface type.

ALPENA COUNTY

F. J. O'Donnell
C. M. Williams
S. T. Bell

ANTRIM-CHARLEVOIX-EMMETT-CHEBOYGAN

F. C. Mayne
B. H. Van Leuven

BARRY COUNTY

B. C. Swift
E. T. Morris

BAY COUNTY

Mary Williams
C. A. Stewart

BERRIEN COUNTY

Robert Henderson
R. H. Snowden

BRANCH COUNTY

F. W. Stewart
S. Schultz

CALHOUN COUNTY

C. S. Gorsline
G. C. Hafford
A. F. Kingsley
W. L. Godfrey

CASS COUNTY

W. C. McCutcheon
G. W. Green

CHIPPEWA-LUCE-MACKINAC

E. H. Webster
Geo. J. Dickison

CLINTON COUNTY

A. O. Hart
F. E. Luton

DELTA COUNTY

J. W. Towey
A. H. Miller

DICKINSON-IRON

EATON COUNTY

Phil Quick
H. J. Prall

GENESEE COUNTY

Hugh Stewart
Henry Cook
Carl Moll
M. S. Knapp
John Benson
J. G. R. Manwaring

GOGEBIC COUNTY

GRAND TRAVERSE-LEELANAU

G. A. Holliday
E. F. Sladek

HILLSDALE COUNTY

C. T. Bower

HOUGHTON-BARAGE-KEWEENAW

I. D. Stern
Simon Levin

HURON COUNTY

INGHAM COUNTY

Sam Osborn
Fred Huntley
W. G. Wight
O. H. Bruegel

IONIA-MONTCALM

F. A. Johnson
I. S. Lilly

GRATIOT-ISABELLA-CLARE

C. A. Pullen
C. F. DuBois

JACKSON COUNTY

G. C. Hicks
H. L. Hurley
C. S. Clark

KALAMAZOO-VAN BUREN-ALLEGAN

L. J. Crum
W. E. Collins
A. E. West
W. R. Vaughn

KENT COUNTY

A. V. Wenger
G. H. Southwick
J. D. Brook
H. J. Pyle
E. W. Schnoor
W. E. Wilson
J. S. Brotherhood
R. H. Spencer

LAPEER COUNTY

P. E. Martin
H. B. Zemmer

LENAWEE COUNTY

A. B. Hewes
A. W. Chase
R. G.B. Marsh

MACOMB COUNTY

Charles E. Greene
James E. Curlett

MANISTEE COUNTY

H. D. Robinson

MARQUETTE-ALGER

A. W. Hornbogen
H. H. Loveland

MASON COUNTY

MECOSTA COUNTY

O. J. East
J. Gillett

MENOMINEE COUNTY

W. S. Jones
S. C. Mason

MIDLAND COUNTY

George Orth
E. J. Dougher

MONROE COUNTY

A. W. Karch
W. F. Acker

MUSKEGON COUNTY

Frank W. Garber, Sr.
E. L. Kniskern

NEWAYGO COUNTY

J. C. Branch
C. A. Mateer

OAKLAND COUNTY

Nathan B. Colvin
Frank Mercer
B. M. Mitchell

OCEANA COUNTY

J. H. Nicholson
A. R. Hayton

OTSEGO-MONTMORENCY-CRAWFORD-OSCODA-ROSCOMMON-OGEMAW

Frank E. Abbott
C. R. Keyport

ONTONAGON COUNTY

E. J. Evans
W. B. Hanna

OSCEOLA-LAKE

OTTAWA COUNTY

R. H. Nichols
H. J. Cherry

SAGINAW COUNTY

D. E. Bagshaw
A. E. Leitch

SANILAC COUNTY

John E. Campbell
G. S. Tweedie

SCHOOLCRAFT COUNTY

SHIAWASSEE COUNTY

J. J. Haviland
W. E. Ward

ST. CLAIR COUNTY

C. C. Clancy
A. L. Callery

ST. JOSEPH COUNTY

WEXFORD-KALKASKA-MISSAUKEE

S. C. Moore
W. J. Smith

TUSCOLA COUNTY

WASHTENAW COUNTY

Theron S. Langford
James D. Bruce
S. G. Bush
George F. Muehlig

WAYNE COUNTY

The following men have been elected as delegates and alternates respectively:

Baumgarten, E. C.
Bell, John N.
Biddle, Andrew P.
Carstens, H. R.
Cassidy, Wm. J.
Chester, John L.
Clark, R. L.
Cole, F. H.
Dempster, J. H.
Dibble, Harry F.
Dutchess, Chas. E.
Gardner, H. B.
Henderson, L. T.
Hewitt, H. W.
Hirschman, L. J.
Kelly, Frank A.
Kimzey, J. Albert
Loucks, R. E.
McGarvah, J. A.
McKean, Richard M.
McLean, Angus
Stapleton, Wm. J.
Walker, Roger V.
Wilson, Walter J.
Yates, H. W.
Baker, Geo. J.
Bookmyer, R. H.
Brooks, C. D.
Catherwood, A. E.
Chene, Geo. C.
Clinton, Wm. R.
Diebel, Wm. H.
Donald, Douglas
Hamilton, Wm.
Healy, G. H.
Kennedy, Chas. S.
Kenning, J. C.
Kersten, Werner
Ledwidge, P. L.
Mills, E. P.
Richey, E. B.
Royce, F. D.
Seeley, Ward F.
Shawan, H. K.
Smith, Roy
Stone, D. D.
Wendt, L. F. C.
Whittaker, A. H.
Wilson, Gerald
Woodworth, Wm.

FIRST GENERAL SESSION

September 15th, 8:15 P. M.

1. Call to Order—President Darling.
2. Invocation.
3. Address of Welcome—President Ingham County Society.
4. Announcements—The Secretary.
5. President's Annual Address—C. G. Darling, Ann Arbor.
6. Address—Invited Guest.
7. Nominations for President.
8. Adjournment.

SECOND GENERAL SESSION

September 16th, 12 M.

1. Call to Order.
2. Announcement of Ballot for President.
3. Introduction of New President.
4. Adjournment.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

PUBLICATION COMMITTEE
R. C. Stone, Chairman.....Battle Creek
A. J. Mac Kenzie.....Port Huron
J. D. Bruce.....Ann Arbor

Editor and Business Manager
FREDERICK C. WARNSHUIS, M. D., D. Sc., F. A. C. S.
Grand Rapids, Michigan

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The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications, or advertisements.

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AUGUST, 1926

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

ANNUAL MEETING

This is the Lansing number of the Journal imparting facts and interesting information relative to our Capitol City where our Annual Meeting is to be held on September 14, 15 and 16th.

The completed program will appear in the September Journal enlarging upon the following details:

September 14th:
House of Delegates—10:00 a. m., 2:00 p. m., 4:00 p. m. and 7:00 p. m.

September 15th:
Combined Section Meetings—9:00 a. m. and 1 p. m.
Michigan State College, 4:00 p. m.
General Session, 8:00 p. m.

September 16th:
Section Meetings morning and afternoon.

Headquarters will be at the new Hotel Olds. We urge that you write for reservations now.

The profession of Lansing will entertain you interestingly at the Michigan State College. Mark the dates, make your reservations and plan to be in attendance.

HONORARY MEMBERS

From time to time members have been raised to Honorary membership by reason of years of service in the profession, or, discontinuance of practice. To become an honorary member, a member must have been in practice for 25 years, maintained a continuous membership affiliation, be elected an honorary member of his County Society, and nominated to the Council and House of Delegates by the Councilor.

The following constitute our roster of honorary members:

July 15, 1926.

MICHIGAN STATE MEDICAL SOCIETY

Name	City	County	Elected
Blake, William	Lapeer	Lapeer	1916
Boise, Eugene	Grand Rapids	Kent	1920
Bonning, Carl	Detroit	Wayne	1914
Burr, C. B.	Flint	Genesee	1925
Fuller, William	Grand Rapids	Kent	1920
Jones, G. W.	Imlay City	Lapeer	1916
Landon, H. B.	Monroe	Monroe	1911
	(Elected from Bay County)		
Munson, J. D.	Traverse City	G. Trav.-Leela.	1920
Turner, F. N.	Lansing	Ingham	1920
Vander Laan, John	Muskegon	Muskegon	1925
Vander Veen, Arend	Ghand Haven	Ottawa	1925

HISTORY OF THE KALAMAZOO ACADEMY OF MEDICINE

On the twenty-seventh day of November 1883 the following Article of Agreement of the Kalamazoo Academy of Medicine were signed by the charter members;

"We, the undersigned, H. H. Schaberg, W. Mottram, Foster Pratt, Adolph Hochstein, J. M. Snook, H. B. Osborne, O. B. Ranney, H. U. Upjohn, H. B. Hemmenway, H. O. Hitchcock, W. B. Southard, W. T. Stilwell, I. W. Fiske, E. C. Southard, and W .L. Worchester of the town of Kalamazoo; C. H. McKain of the village of Vicksburg, E. C. Adams of the village of Alamo. O. F. Burroughs of the village of Galesburg, O. F. Seeley of the village of Climax, and J. M. Rankin of the village of Richland, all of the County of Kalamazoo and State of Michigan, do this day in accordance with chapter one hundred twelve (112) of the compiled laws of 1877 of the State of Michigan, hereby agree to associate ourselves for the period of 30 years into a society for the literary and scientific improvement in the medical profession; said society to be known as the "Kalamazoo Academy of Medicine," whose office for business shall be in the City of Kalamazoo and the State of Michigan.

Given this twenty-seventh day of November in the year 1883, in Kalamazoo, County of Kalamazoo and State of Michigan. (Signed),

H. H. Schaberg, E. C. Adams, H. O. Hitchcock, Foster Pratt, W. B. Southard, W. Mottram, Adolph Hochstein, O. F. Seeley, W. F. Stilwell, I. W. Fiske, H. U. Upjohn, J. M. Snook, E. C. Southard, O. B. Ranney, J. M. Rankin, H. B. Osborne, C. H. McKain, W. L. Worchester, O. F. Burroughs, H. B. Hemmenway.

Acknowledged before Oscar F. Coleman, Notary Public.

Filed with County Clerk, Kalamazoo County, December 29, 1883.

Filed in the office of the Secretary of the State of Michigan January 9, 1884.

Prior to its incorporation as the Kalamazoo Academy of Medicine our society was known as the Kalamazoo Medical and Surgical Association. It would seem to be a matter of interest, not only, but also of value, to enumerate the physicians who served as president of this Society and of the Kalamazoo Academy of Medicine down to the present.

They are as follows:

Dr. H. O. Hitchcock	1878
Dr. Dunning	1879
Dr. Grant	1880
Dr. C. Van Antwerp	1881
Dr. Chase	1882
Dr. Knowles	1883
Dr. Andrews	1884
Dr. H. O. Hitchcock	1885
Dr. I. W. Fiske	1886
Dr. W. Mottram	1887
Dr. H. B. Osborne	1888
Dr. J. M. Snook	1889
Dr. G. D. Carnes	1890
Dr. A. Hochstein	1891
Dr. W. P. Southard	1892
Dr. L. Simpson	1893
Dr. Foster Pratt	1894
Dr. O. A. LaCrone	1895
Dr. D. S. Belknap	1896
Dr. J. W. Elliot	1897
Dr. W. M. Edwards	1898
Dr. C. Van Zwaluwenburg	1899
Dr. O. F. Seeley	1900
Dr. H. H. Schaberg	1901
Dr. C. H. McKain	1902
Dr. Herman Ostrander	1903
Dr. L. G. Rhodes	1904
Dr. J. W. Bosman	1905
Dr. A. H. Rockwell	1906
Dr. William Stone	1907
Dr. A. W. Crane	1908
Dr. R. E. Balch	1909
Dr. G. F. Inch	1910
Dr. J. H. Crosby	1911
Dr. O. H. Clark	1912
Dr. C. E. Boys	1913
Dr. J. E. Maxwell	1914
Dr. Frederick Shillito	1915
Dr. A. L. Robinson	1916
Dr. C. B. Fulkerson	1917
Dr. J. B. Jackson	1918
Dr. Frank C. Penoyar	1919
Dr. Walter denBleyker	1920
Dr. J. H. Van Ness	1921
Dr. B. A. Shepard	1922
Dr. L. H. Stewart	1923
Dr. N. L. Goodrich	1924
Dr. S. Rudolph Light	1925
Dr. Rush McNair	1926

W. G. Hoebeke

ITINERANT PRACTITIONERS

Michigan is the playground of the nation. Our resorts, lakes, climate etc., attract thousands to our state for varied periods of sojurn during the summer season. This summer population materially increases the population of certain recognized resort cities. Among the number are physicians who spend a month or two at their cottages in these resort areas. They are itinerant doctors from other states, unlicensed to practice in Michigan, but still they do practice and in so doing impose themselves upon the local physicians. This is an injustice to the local doctors. We trust that the State Board of Registration will refrain from issuing any such temporary licenses. The Journal is in complete sympathy with the complaint voiced in the following letter:

July 7, 1926.

Secretary-Editor, Michigan State Medical Society, Grand Rapids, Mich.

I am just in receipt of some correspondence by Dr. Van Leuven and some others and I am fully in accord with his letter to you in regard to issuing a license to an Ohio physician to come into the State of Michigan and into her Resort regions and practice for two or three months.

California would not allow a Michigan physician to come into California and practice for two months in the winter. Florida would not allow the same to be done there and I can see no reason for Michigan to allow it.

These parties are asking their "family physician" to come north to be with them: they are asking for a NEW man—any one to be *near*.

Petoskey has competent physicians and if they need any assistance Cheboygan is a whole lot nearer than Cincinnati.

Very truly yours,

W. F. Reed.

DELEGATES

In our plan of organization provision is made whereby every county society is entitled to representation in the House of Delegates by one delegate for every 50 members or major fraction thereof. The House of Delegates is the supreme governing power of our society. In the interim of annual meetings, the Council is the directing authority. The House of Delegates inaugurates policies and directs principles of activities and work.

In view of this representation it is extremely essential and important that County Societies in electing delegates will insist that their delegates attend all the sessions of the House of Delegates. Their absence means that your County Society and its Members are without representation and have no part in the deliberations. Delegates elected are requested to note the hours for the sessions of the House of Delegates and plan to be present.

"HOW MUCH IS YOUR FEE, DOCTOR?"

By a California Specialist

"How much is this operation going to cost me, Doctor?"

"Well, I am going to charge you, for giving you the skill I have worked 20 years to acquire, and for the knowledge which I have studied years and spent thousands of dollars to gain, as well as for some half dozen hours of my time, used in examining, operating and dressing—for this I am going to charge you the same amount the automobile dealer charged you for taking you to ride in his demonstrator, and talking you into buying one of his cars. He actually spent less time on you than I spent, and certainly spent less than I on his education and training. As to taking responsibility, he took none—he had nothing to lose except his time and a small portion of his overhead expenses. I had your life in my hands: and there were moments, during the operation, when that responsibility weighed heavily. Do you consider that he rendered you a greater service than I? It certainly cost him less of his vital force to render it. You feel that I am taking great advantage of you when I charge you $200 for putting your body in the best repair of which it is capable; but you are pleased and happy to pay him $200 for persuading you to buy his brand of car. I realize that it seems to you that in one case you are paying for personal service, which gives you no pleasure, and in the other case for merchandise, for goods you can actually see and feel and which do give you pleasure. But you should also look at it from the viewpoint of the motor car dealer and myself.

Similarly, for the care I give your wife throughout her pregnancy—for the numerous examinations and for the encouragement and heartening I try to give her—for the disturbance of my rest in the dead of night, for the hours of waiting, with eyes heavy for want of sleep—for taking the responsibility of doing the very best possible for mother and babe and for watching and guiding them through the first 10 days of the babe's life; for all this, I am going to charge you the same amount as the piano dealer who talked with you for an hour on two or three occasions, very courteously explained to you the superior points of this piano and finally drew up the contract and made you the sale. You never thought he was asking too much of you, because you never really considered him as asking you anything for his service. You were paying $400 for PIANO and it did not seem to you unreasonable. If the salesman had charged you even $10 for his personal services in showing you the pianos, you would have been indignant. But with the impersonal thing, the piano, and its value as merchandise and not as service, you feel no resentment nor injustice.

You simply do not stop to analyze. You do not realize that you are paying anything for personal service when you buy merchandise. Besides that, when you pay for medical service, you are usually "paying for a dead horse." You have already had the relief from pain, or from the anxiety over sickness. With your car, you are paying for pleasure which your are going to enjoy or which you are still enjoying. If you were obliged to pay your doctor bill before you got relief from discomfort, you would pay more eagerly and willingly.

For all the calls I made at your house when you had the flu; for giving my most careful thought as to the best way of managing your illness; for exposing myself to possible contagion or six hours of actual time I spent calling on you and going to and from your home, and for the various supplies I expended in treating you, I am going to charge you the amount which you put into the radio dealer's "profit account" to compensate him for having placed his receiving set in your living room. Remember, I'm not talking about the cost of the set, but what you paid him to induce you to choose it.

Am I fair? Or am I an extortioner? For my services to the community year in and year out I am not demanding any more than the head of your bank, nor than your successful realtors or your merchants—often less. I usually work more hours than they do; and I never consider my own comfort.

Do you really think that I am a "Grafter"?—Medical Economics.

"CANCER AND KOCH"

As incidents increase in number we are increasingly surprised that there are those who for financial returns soley resort to said questionable methods. The following letter is characteristic of a number that have been received. We publish it with the request that names be forwarded to us of all doctors who are engaged in administering this so-called —Koch Treatment.

July 9, 1926.

Secretary-Editor, Michigan State Medical Society,
Grand Rapids, Mich.

I want to take this opportunity to congratulate you on publishing the letter of Mrs. Tom Lashaw; also the letter written in confidence to Dr. Darling by the physician who gave the serum treatment to the child. He did not tell you that he received $275.00 for his endorsement of the KOCH METHOD.

Dr. Koch solicits the co-operation of doctors, offering to send the serum to them for $100.00 and they to promise not to charge less than $300.00 to the patient. That the $200.00 is ample pay for their work.

Kindly confirm this statement and give publicity of same if you care to expose the dishonest physician recommending the Koch treatment.

Fraternally,
ONE WHO KNOWS.

Editorial Comments

Our Lansing sessions will be in auditoriums, well ventilated, and free from extraneous noise. Plan to attend for you will profit.

We are certain that the activities that are being arranged by the Lansing profession at the State College will be a prominent feature of the meeting. You will be both enlightened and entertained.

When one reviews what the State Society is actually accomplishing the dividend forthcoming each year is modestly computed as equivalent to 500 per cent on your $10 annual dues.

Delegates Credential Certificates will be mailed to County Secretaries for distribution to their delegates. It is urged that each county will make certain that their delegates are in attendance to represent them in all the deliberations of the House of Delegates.

Our scientific program will be most helpful and enlightening. There will be comfortable auditoriums with freedom from outside disturbances. The Lansing profession pride themselves upon a record of genial hospitality. It is not too early to mark the dates on your calender and plan to attend.

By action of the Council there will be no Commercial Exhibits at our Annual Meeting. The expense entailed in securing space, the cost of booths, the confusion and detraction frequently encountered did not equal the profit that accrued. Our Society can hold an Annual Meeting without that monetary income.

Delegates are requested to note the hours for the meetings of the House of Delegates. You represent your local society members and owe to them representation by being present at each session. You are also urged to participate in the discussions and deliberations. Credentials will be mailed to your county secretary who will countersign them and present them to you.

Get to know the other fellow, his job, his trials and his manner of work. Both profit by such efforts of acquaintanceship. Hats off again to Oakland County. On July 14th, the Oakland members invited the Oakland Bar Association to a golf game and dinner. Twenty-seven Medics and 27 Blackstonians paired off for 18 holes and then when the scores were turned in all sat down to a feed. We strongly recommend the same plan for all of our County Societies. It is hardly necessary for us to further comment upon the value of such an intermingling. Who is next?

The legislation convenes this winter. News items herald again that the "Chiro's" have re-organized elected new officers and are making plans for a legislative campaign so as to secure new legislation that will give them a State Board. We may expect their usual activity with candidates and their sob story of persecution. We have no fight with them or any other cult. Our only contention is that a standard for practice must be set and then all who desire to practice whatever school or cult must meet that standard. That there be no favoritism or special dispensations. Tell that to your representatives.

On our editorial pages we are reprinting from Medical Economics an article, "How Much Is Your Fee, Doctor?" In our opinion it is one of the first presentations of an argument refuting the howls of people who rant about fees. Using these comparisons, doctor, in answering your patients will help to educate the public. The comparison may be extended to other trades, vocations and business transactions if you will just pause and reflect upon methods of insurance agents, real estate men, collectors, garages, banks, stores, etc. The article is so good that we want you to save it . We thank Medical Economics for making it available.

In an Opium, or rather Drug Addict conference held recently in Lansing, the public press reporting the conference came out with headlines stating that doctors, by reason of free use of the hypo, were responsible for a large percentage of drug addicts. This statement was attributed to the Mayor of Monroe, a doctor, not a member of his County Society. We ask "his Honor," the Mayor, to present the basis upon which he founds such an allegation. We also suggest that he familiarize himself with the results of several authentic surveys and studies that determine facts and place no charges against doctors. We are quite sure that his Honor would not be bereft of facts did he but read a few Medical Journals and learn the true situation before making public charges that are not substantiated by facts or experience.

Five states declined to avail themselves of the doles of the Sheppard-Towner Act, that created a Paternalistic Bureau in Washington. In these states—Illinois, Kansas, Maine, Connecticut and Massachusetts—report a death rate under one year of 69.9 per thousand. In states, accepting this Bureau's aid the deaths were .74 per thousand. The Bureau is now seeking to perpetuate itself at a yearly expense of a million and a quarter, and appears to be merely providing jobs, paying salaries and issuing literature which is ineffectual in preventing maternal deaths. We recall the vivid promises and statements of proponents as to how this law was going to save mothers and babies. Will these proponents now rise up and justify their statements made at the Lansing hearing several years ago?

The practice of medicine by nurses in Clinics, Schools and Industries is expanding each year. We stand idly by and permit it. Is it not time for a concerted movement on the part of our State Board of Registration to Educate some if not all of our prosecuting attorneys as to what constitutes infringment of our medical law and to urge them to enforce it. This can be accomplished by correspondence, and we are confident results will ensue if persisted in. Failure of county prosecutors might also be drawn to the attention of the Attorney General. This is but a suggestion which we feel sure will be given the Society's support if the Board will undertake initiating the movement. A Board of Registration may well extend its efforts beyond the conducting of a few examinations each year.

J. A. Wainwright, of Scranton, has published an interesting study on tetanus based on 2,000 replies to a questionnaire and submits the following conclusions:

1. Intraspinal injections are harmful, increase mortality, and should be abolished.
2. Antitetanus serum is not useless. Given bv vein in doses of from 30,000 to 50,000 units or more. according to the severity of symptoms and the time since onset it will divide the present average mortalitv rate by two or three, or more. The efficiency of this dose and route will depend directly on the promptness with which it is given.
3. If the initial dose has to be repeated it should be of approximately the same size and by vein only. In the last days of convalescence intramuscular injections are allowable.
4. The best sedative is chlorbutanol, given in a dose of 30 grains (1.95 gm.) dissolved in hot whiskv by mouth, or 75 grains (4.87 gm.) in hot olive oil bv rectum, repeated sufficiently often to keep the patient relaxed and drowsy till the danger is passed.

Note—In order to obtain more convincing proof of the value of the method of treatment suggested here it is necessary to compile a large number of statistics from various sources. On this account I should appreciate it if any physician who uses this method would report the details and results to me at 912 Clay Avenue, Scranton, Pa.

Just as we were beginning to fear that our correspondent from the "Jack Pines" had exhausted his "Pine Juice," or is it "Spruce Juice"—here comes along an abbreviated, scented breeze. No cause is given for the "silent hours"—here's hoping they become shorter and that more sap will run:

"Dear Secretary:—

You are lucky, I had about forty pages bottled up for you, just waiting time to copy it. Can't wait. Yours on Birth Control shows that you have normal amount of grit in your crop. Think you are right and said it well. When they say what it will lead to I say: Look around you, can you beat it?

The first question I ask is: "Do you use Iodized Salt?" I have had forty cases of Iodism the last sixty days. Quietly say: "Never use Iodine in any form without the advice of a physician."

Politics. New man at the head of the Health Commission, discharge forty per cent of the gang that is up here weighing babies and catching our trout and cut out sixty per cent of your printed matter. To the new Governor, and, say our associations are getting top-heavy. Too far up in the sky to know what is going on upon the ground. Publishing too much remote high brow stuff and repeating it over and over to men who have read it too long ago. And the joke: We get a man to come out and talk to us farmers, and he delivers the same stuff.

That periodic ex. blank is bum.

Hygeia? Nixy. They come in and want 'some of that stuff Hygeia tells us about, say 16 cents worth.'

Who asks them to write that stuff?

Good bye, God be with you."

We have in the years past advocated from time to time the introduction of actual practice during medical courses in order that the student when handed his degree may not be dazed when he lands in the arena of work. The University of California has adopted a sensible plan. Why not follow suit at Ann Arbor along the following California plan?

"During the last two years the Medical Department of the University of California School has had the co-operation of some of the prominent alumni in the preparation of students for practice. These alumni have, severally, spent a week at the school carrying on, by seminar, lecture and personal contact, instruction in the art and practice of medicine. The experiment has proved of great value to students, interns and faculty, alike, and the alumni have expressed themselves as well repaid for the time spent at the school.

The purpose in giving the course, was: (a) To give the student first hand information about general practice in communities of varying sizes to encourage graduates to enter this field; (b) To teach the student the tools of his trade which he may not get in the regularly scheduled courses; (c) To inform the student on applied therapeutics and the art of medicine; (d) To recognize the ability of alumni in general practice and to bring them back to the school for the mutual benefit of faculty, students and themselves; (e) To build up a strong and loyal alumni. In carrying out our plan four men were selected and each one was asked to spend a week at the school. During that time he was invited to visit the various departments; to learn something about present methods of instruction; to suggest what he would do in regard to the possibility of carrying out certain measures in general practice; to witness operative procedures and to make rounds with the staff on the wards and in the out-patient department. Two seminars with senior students were held during each week and more or less formal talk given to the entire student body and house staff. Informal discussions with students were made possible.

This year a further experiment was tried during the second half of the fourth year, which is elective. Three selected students were sent out to communities of varying size and assigned for a month each to alumni in general practice. Another student spent a month in a group clinic where there is close co-operation on all cases.

The students and alumni have expressed themselves favorably on the method of instruction."

An unsuccessful effort was made in the Senate. June 15, to bring up for passage the bill to extend for two years the provisions of the Sheppard-Towner Infancy and Maternity Law. Senator Phipps, chairman. Committee on Education and Labor, inserted in the record the report of that committee, recommending that the Sheppard-Towner Law be continued for one year—and no longer. The report states that a date for the discontinuance of the law should be definitelv established now; that the work in the several states is strictly a local function; that the states should stand on their own feet rather than lean on the central government, thus tending to impair the prestige, power and sovereignty of local self-government. The Sheppard-Tower Law was sharply criticized by Senator Reed of Missouri and by Senator King of Utah. Senator King said: "It seeks to perpetuate an undemocratic and a paternalistic policy which was adopted in a moment of hysteria and as a result of an adroit and subtle propaganda. The bill before us

seeks to thrust the federal government into the states for the purpose of discharging duties and responsibilities which rest either upon the states or upon the people themselves. It is in line with the hysterical suggestions so often made that the states must be controlled by bureaucracy and that the people are incompetent to govern themselves and must therefore submit to a deadly paternalism or to an omnipotent and tyrannous bureaucracy. Congress, when it passed the measure which it is now proposed shall be continued in force for a further period, enacted that it should exist for only five years. But bureaucrats and those who hold jobs under that law propose to do as bureaucrats always seek to do, namely, continue indefinitely temporary organizations and bureaus and policies in order that they may have federal positions and push the federal government into local and state concerns." Senator King's statements were controverted by Senator Sheppard of Texas, co-author of the bill, and Senator Simmons of North Carolina. The former asserted that the measure "has more than vindicated itself and that if the states are given full and proper opportunity they will in a few years become sufficiently familiar with the situation and sufficiently trained in this work to carry it on as suggested by the committee; but to limit it at this time to one more year is to fix entirely too short a period." The impression has prevailed that the proponents of the Sheppard-Towner Law expected to establish this work as a permanent part of the federal government's activities at a cost annually of $1,240,000. The debate concluded by a statement which Senator Bingham of Connecticut inserted in the record from the Census Bureau. This statement showed that in the five states which have rejected the Sheppard-Towner Law and the federal appropriations offered thereunder, namely, Connecticut, Illinois, Kansas, Maine and Massachusetts, the deaths under one year per thousand were only 69.9, whereas in the 28 states in the birth registration area that have accepted this aid, the deaths were 74 per thousand. The Children's Bureau is co-operating with 15 states not in the birth registration area, and concerning such co-operation it was said: "Accurate birth and infant mortality registration is the first essential in getting information of infant mortality, one of the things the Children's Buerau was created to do. Let the Children's Bureau, with full power to require birth and mortality registration in the 'plans' of states accepting the maternity act, has 'co-operated with' 15 states in not registering births and infant deaths." Final action on the bill to extend the Sheppard-Tower Law is thus deferred.

—Journal A. M. A.

Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

UNRELIABLE INSURANCE

Editor of The Journal:

In reply to your letter of the 18th instant, we desire to advise that the American Lloyds of Chicago is not authorized to do a health and accident insurance business within this State. Mr. J. Stamper the agent mentioned in your letter who apparently sold you the policy issued is now fighting extradition proceedings instituted by the State to bring him back so that he will have to stand charges preferred against him all of which pertains to his activities as an agent for the institution in question.

There is nothing this Department can do to affect the cancellation of the policy and procure a refund of the premium paid. This will have to be done by court procedure if we are fortunate in bringing Mr. Stamper within this State.

Yours very truly,

R. M. Wade, Second Deputy Commissioner.

Editor of The Journal:

In the absence of President Butterfield, who is in Europe, I am taking the liberty to acknowledge receipt of your letter relative to our course on Medical Biology.

On behalf of the President I want to thank you for your interest in the matter and to express the hope that you will be successful in securing a favorable action from the Council on Medical Education of the A. M. A.

I am sure you will find the Faculty of Michigan State College very happy to receive suggestions for the improvement of this course from the Council.

Sincerely yours,

Ward Giltner,
Dean of Veterinary Medicine.

Editor of The Journal:

I have just received my copy of the State Medical Journal and have noted a letter from me on iodized salt that is quoted in it.

May I call your attention to an error in the letter. doubtless done by the printers?

The letter states that we addressed a letter to all physicians in the state asking if any iodized salt had come to their attention. Of course this should read "asking if any evil effects from the use of iodized salt" had come to their attention.

Very truly yours,

R. M. Olin, M. D., Commissioner.

State News Notes

Dr. George C. Burr, Detroit, returned from Europe, July 1st.

Dr. D. C. Chandler, graduate of Johns Hopkins, who served as Chief Resident at Butterworth Hospital has located in Grand Rapids.

The next examination given by the American Board of Otolaryngology will be held in Denver, Colorado at the University Hospital on Monday, September 13, 1926. Application should be made to the Secretary, Dr. H. W. Loeb, 1402 South Grand Boulevard, St. Louis, Missouri.

Dr. Franklin H. Martin, Director-General of the American College of Surgeons and head of the Gorges Memorial Institute was given the honorary degree of "Doctor of Public Health" at the recent commencement exercises of the Detroit College of Medicine and Surgery.

The Academy of Surgery of Detroit held its last meeting of the year at the Prince Edward Hotel, in Windsor on Wednesday, June 16, with Dr. Channing W. Barret of Chicago as Speaker.

The Officers for the ensuing year are:

Alexander W. Blain.....President
William H. Honor.....Vice President
Grover Penberthy.....Secretary-Treasurer

In a recent lawsuit, in which Dr. R. E. Scrafford of this city was the defendant, the jury disagreed. He was alleged by Mrs. Willard E. King of this city to have been negligent in treating a fracture of the femur suffered by the plaintiff. The principal medical witness for the plaintiff was Dr. Joseph C. Grosjean of Bay City, and a member of the Bay County Medical Society, who testified that in his opinion, Doctor Scrafford, did not use the average skill required of him in the treatment of this fracture. Several prominent physicians of this community testified in behalf of Dr. Scrafford. Dr. Scrafford was defended by Frank T. Lodge of Detroit representing the Medical Protective Company.

The James Decker Munson Hospital and the Hannah Lay Morgan Memorial Pavilion of Traverse City was dedicated on July 28, 29 and 30th with the following exercises:

High School Auditorium

7:45 P. M.

Addresses of Interest to the Public

Presiding.....Dr. Lafayette Swanton, President, Staff of James Decker Munson Hospital.

"The Use of Psychiatry in Every Day Human Relations," .....
Dr. A. L. Jacoby, Director Psychopathic Clinic, Detroit.

Subject to be announced.....Dr. Richard M. Olin, State Commissioner of Health, Lansing.

"Relation of Small Hospital to Community,".....
Dr. Harley Haynes, Superintendent University Hospital, Ann Arbor.

Address.....Dr. Victor C. Vaughan, Washington, D. C., former Dean, Medical Department University of Michigan.

Thursday, July Twenty-ninth

8 to 11:30 A. M.

Medical Clinics—James Decker Munson Hospital.

Neurological Clinic.....Dr. C. D. Camp, Professor of Neurology, University of Michigan.

"Rheumatic Heart and Its Management,".....
Dr. Martin A. Mortenson, Battle Creek Sanitarium.

"Spirochaetal Pulmonary Gangrene and Related Respiratory Infections," Illustrated by lantern slides .....
Dr. D. J. Davis, Professor of Pathology, Dean of Medical Department, University of Illinois.

"Modifications of Diagnostic Conceptions Brought About by X-Ray,".....
.....Dr. A. W. Crane, Kalamazoo.

12 NOON

Dinner, will be served in the State Hospital Dining Room, in honor of the Governor, State and County officials, physicians and other especially invited guests.

Invocation.....Rev. Father Schuller

Introduction of Toast Master, Dr. James Decker Munson .....
Hon. Robert K. Jardine, Secretary State Hospital Commission.

Welcome....Hon. J. T. Milliken, Mayor, Traverse City

Response.....His Excellency, Governor Alex J. Groesbeck.

Presentation of Memorial Pavilion.....Hon. R. Floyd Clinch, Chicago.

Acceptance.....Hon. R. G. Ferguson, President Michigan State Hospital Commission.

Hannah-Lay-Morgan Memorial Pavilion Address
.....Hon. Wm. C. Boyden, Chicago.

2:30 P. M.

Medical Clinics, Continued—James Decker Munson Hospital

"Diabetes" .....
Dr. L. H. Newburgh, Professor of Medicine, University of Michigan.

"Pediatric Clinic".....
Dr. Isaac A. Abt, Professor of Pediatrics, Medical School Northwestern University.

"Bronchiectasis," Lantern slides of iodized injections .....
Dr. James S. Pritchard, Battle Creek Sanitarium.

6 P. M.

Complimentary Dinner by the Grand Traverse, Leelanau Medical Society for visiting Doctors at the Traverse City Golf and Country Club.

Public Dedication

7:45 P. M.

High School Auditorium

Presiding.....Dr. James Decker Munson
Music.....Ann Arbor Trio
Service of Dedication led by....Rev. Dr. Demas Cochlin
Music.....Ann Arbor Trio
Address.....His Excellency, Hon. Alexander J. Groesbeck, Governor of Michigan.
Music.....Ann Arbor Trio

Friday, July Thirtieth

8 A. M.

Surgical Clinics—James Decker Munson Hospital

"Surgical Clinic".....
Dr. F. A. Coller, Professor of Surgery, University of Michigan.

"Renal Calculi".....
Dr. Carl W. Eberbach, University of Michigan.

12:30 P. M.

Luncheon to visiting Doctors, State Hospital Dining Hall.

2 P. M.

Surgical Clinics, Continued—James Decker Munson Hospital

"Recurrence Following Operation in Cancer of the Breast".....
Dr. R. A. Balch, Kalamazoo.

"Orthopedic Clinic".....
Dr. Carl Badgely, Professor of Orthopedic Surgery, University of Michigan.

"Tuberculosis of the Kidneys".....
Dr. Hugh Cabot, Dean Medical Department, University of Michigan.

6 P. M.

Dinner to visiting Doctors, Golf and Country Club.

Our Society Business and Activities

HARVEY GEORGE SMITH
EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

ARE YOU GOING TO THE STATE MEDICAL MEETING?

Are you going to the State meeting? has been asked a number of times recently. The reply has been any one of the following, "No, I can't spend the time." "I am going to the Tri-State. It is over at Cleveland this year only a short distance and I will get something worth while." "I guess maybe I'll go down for a day." Do any one of these replies strike you as being enthusiastic? If the layman overheard any of these statements would he believe you were much of a booster for your own science and profession? Would he believe you enjoyed your profession? Would he have more faith and belief in your ability in your science? The Englishmen say the reason they lost three meets in Golf to Americans recently is that the Englishman when he used his iron and failed to make his stroke count, "Said one stroke lost" while the American making the same degree of failure said, "I'll recover on the Green by clever putting." One is constructive psychology the other is destructive. One secures results, the other doesn't. The same method of reasoning applies to the State Medical Society Meeting. One, advances, makes progress, achieves new victories; the other retards, lowers, makes for failure.

The Section Committees, the Council, the Executive Committee of the Council have been at work for months in efforts to achive the best Medical Society meeting of record. One day has been set aside for Section meetings and one day for general sessions. Two days are to be spent in council and lecture hall in the interest of Scientific Medicine throughout the State. Throughout the State means every section. Not one less doctor from this county and that one, from this city and the other, but one more. Further it means. "I'll be there and present at the sessions. I'll recover by being present for my County Society."

County Societies, through their officers, committees and members have an opportunity to be enthusiastic about the State Meeting. They may impress the laymen of every community with their enthusiasm for their profession. They may have made a bad impression in the past and thus far this year but there is opportunity to recover. Be an American in your profession 'recover,' be a victor by being present and being a booster for your State Medical Society Meeting on September 14, 15, and 16th at Lansing.

POST-GRADUATE CONFERENCES IN THE NORTHERN PENINSULA

The second series of Post-Graduate Conferences conducted by the Michigan State Medical Society with the Twelfth Councilor District and component County Societies was conducted according to the itinery of time, place and program.

Escanaba—July 27th, Elks Club.
Marquette—July 28th, Court House.
Houghton—July 29th, Douglas House.
Ironwood—July 30th, Memorial Bldg.

PROGRAM:

10:15—Opening Statements.
Richard Burke, M. D., Councilor-Chairman.
Harvey George Smith, Executive Secretary.
10:30—"Diagnosis of Chest Conditions."
William H. Marshall, M. D., Flint.
11:00—"Essentials in a Neurological Examination."
John L. Garvey, M. D., Ann Arbor.
11:30—"Pre-Natal Care."
Roland S. Cron, M. D., Milwaukee.
12:00—Luncheon—(See letter for place).
2:00—"Fractures of the Skull."
Max Minor Peet, M. D., Ann Arbor.
2:30—"Gastric Ulcer."
Elmer Eggleston, M. D., Battle Creek.
3:00—"Diagnosis and Treatment of Cardiac Pain."
William H. Marshall, M. D., Flint.
3:30—"Sequels of Epidemic Encephalitis."
John L. Garvey, M. D., Ann Arbor.
4:00—Recess.
4:10—"Diagnosis and Treatment of Diseases of the Cervix."
Roland S. Cron, M. D., Milwaukee.
4:40—"Acute Abdominal Diseases."
Max Minor Peet, M. D., Ann Arbor.

JACKSON COUNTY LEADS

How many doctors present here this evening have had a complete physical examination within the past year? was asked by the President of the Jackson County Society at a recent meeting. The result of the ballot was that 30 had and 30 was the

number present. Here is a hundred per cent record. The doctors themselves are practising what they preach.

The doctors must lead the way in the program for Periodic Health Examinations of the Apparently Well. Every County Medical Society in Michigan should be urging its membership to have complete physical examinations. Not one county but every county and thus the entire membership of the State, 3,000 doctors, record by action as well as by belief the value for health and happiness for themselves of Physical Examinations. "Practice What You Preach," is the slogan of business, industry, worker, every one in fact. If the public can once realize completely the value of preventive health measures and that the family doctor knows how to examine and instruct his patients in the maintenence of health rather than in recover from disease alone, then will be achieved an understanding of the Science of Medicine. Then will each individual receive and have the greatest amount of physical and mental health, thus the greatest usefulness to self, the community and the nation, and the largest amount of happiness and satisfaction.

County Medical Societies must attain this objective. Officers and members during these summer months prepare for action and the attainment of results.

GOLF TOURNAMENTS

The judge said, "The 'Docs' have us one up at the ninth hole" and they are making us play golf as his foresome turned back for nine more holes. Another group said, "the doctors are sure 'good kidders,' but they will pay us two new balls when we hit 18." The tournament was an invitation to the Medical Society of Oakland County by the Bar Association. Thirty-seven lawyers and 30 doctors took part. From the time the first new white "Pill" was driven off the number one tee at one o'clock until the last one dropped in the cup at 18 was an atmosphere of good fellowship, friendship and sportsmanship. Everybody played for fun but played to win. And when the tournament was finished the doctors were again guests to a steaming, hot chicken dinner. Fun and laughter mingled with old college songs and several speeches made up the program. One was truly reminded of the old days at College where there was always friendly rivalry but everybody was a good fellow. This event was similar. There were no disappointed faces. Everyone was well met, everyone had a smile for his fellow in his own and his neighbor profession. The version of all would agree with the statement of one who said, "I didn't know we had such a splendid group of men in these two professions."

The Bar Association of Oakland County is to be complimented on staging the first doctor-lawyer golf tournament in Michigan. May others throughout the State follow. "Those who can play together can build better professions, better business, better communities, better cities, better citizens.

Deaths

Doctor J. H. Barnard of Fremont, Michigan died on June 5th, 1926 at Mercy Hospital, Muskegon, following a serious operation. Dr. Barnard was 62 years of age. He was a graduate of the Grand Rapids Medical college, class 1900. Since graduation he practiced in the city of Whitehall, where he had a wide acquaintance in his community.

County Society News

GRATIOT-ISABELLA-CLARE COUNTY

The July meeting of the G. I. C. was held in the Alma City Hall Thursday, July 8th at 8:30 p. m.

Before the meeting 16 of us had supper at the Wright House.

President Graham called the meeting to order. There was some discussion as to whether we would meet in August and September. Motion was made and carried that we dispense with the August and September meetings.

One out-of-town speaker was Doctor F. A. Coller of University Hospital. Subject, "Ulcer of the Stomach and Duodenum." The doctor covered the subject thoroughly also speaking of Gastric Cancer in relation to Ulcer, later showing slides which proved interesting, and instructive.

E. W. Highfield, Secretary.

EATON COUNTY

Eaton County Medical Society held its June meeting on Thursday the 24th at the Congregational Church, Charlotte, Mich. There was about 40% attendance and after a very short business session we proceeded at once to the program.

Dr. C. A. Stimson of Eaton Rapids gave a very interesting talk on the "History and Uses of Acidiphilus Milk." He emphasized the beneficial effects in all cases of Colitis and Colonic stasis if used in conjunction with other methods.

Professor Ruehle of M. S. C. then gave the chemical and bacteriologic studies of Acidiphilus milk as carried out at M. S. C., where it is being made and distributed for use. He emphasized the importance of fresh cultures with its use and the use of large quantities if results can be expected.

H. J. Prall.

LENAWEE COUNTY

The June meeting was the occasion for the annual picnic.

This year Dr. and Mrs. L. J. Stafford were our hosts at their cottage on the west shore of Sand Lake.

Twenty members and their families attended and while the ladies played Bridge the Doctors indulged

in strenuous games of horshoe pitching, baseball, archery and rifle target shooting.

At six o'clock a long table was set in the yard. It was soon evident that all the Lenawee County members had picked good cooks for their wives.

After supper an old fashioned game of "One Ol' Cat" was played until an insufficient number of players remained with breath enough to carry on the wild scramble.

As darkness came over the scene, those who still remained gathered around a table in the cottage where the grand old game with the red, white and blue discs began, and "so, far into the night."

Our next meeting will be in September.

Tecumseh, Mich.

R. G. B. Marsh, Secretary.

ALPENA COUNTY

The regular meeting of the Alpena Medical Society was held at the Alpena House June 18. H. J. Burkholdr entertained at dinner. Following dinner Dr. John Purdy of Long Rapids read his paper on physical examination of the chest. The paper was discussed by all present.

The July meeting was held at the Long Lake Lodge, July 15th. Guests on this occasion were the wives and the Chippewa County Medical Society. Drs. Cameron, Bell, Jackson and Williams were the hosts on this occasion. A golf tournament with the Soo physicians started the program at 4:00 o'clock. At 6:30 dinner was served to 46 members and guests in the Lodge Dining room. Following the dinner Dr. F. C. Bandy, of the Soo gave an interesting paper on some of the commoner Mental Diseases. Dr. G. A. Conrad then presented a paper on Enlarged Prostate. This was the return visit of the Soo physicians. That the local society was highly gratified to have such able papers presented, and to have so many interesting discussions of them goes without saying.

C. M. Williams, Secretary.

HOUGHTON COUNTY

The Houghton County Medical Society held its regular monthly meeting at the Miscowaubik Club, Tuesday, June 2nd. After reading of the minutes and presenting of bills, this being the regular yearly business meeting, various business matters of the Society were discussed and plans made for the meeting to be held July 6th on physical examinations in Houghton.

Dr. W. T. S. Gregg gave a preliminary report of the American Roentgenological meeting which he attended at Detroit. He will give a full report at one of our later meetings.

The Society then adjourned to lunch.

The Society held its regular monthly meeting July 6th at the Houghton High School auditorium. This meeting was planned and given to give publicity to the annual physical examinations. Dr. A. F. Fischer read a very interesting paper on "Human Bookkeeping." Dr. Fischer took up the various phases of physical examination, outlining a form to be followed, and stressed the importance of an annual physical examination, urging its occurrance on ones birthday.

The film "Fighting for Dear Life," furnished by the Metropolitan Life Insurance Company did not arrive. It will be shown at a later date.

We are making extensive plans for our annual post-graduate conference to be held in Houghton July 29th and hope to have a good attendance at same.

G. C. Stewart, Secretary.

IONIA-MONTCALM

The June meeting was held Thursday, evening June 10th at the Hotel Belding.

Dinner was served at 7 P. M.

At the business meeting which followed the dinner, Dr. J. F. Pinkham, Belding, was appointed to write the history of the County Society.

Dr. Shackelton, Kalamazoo, gave a paper "Acute Surgical Conditions of the Epigastrium." He demonstrated the necessity of first differentiating between the surgical conditions and non-surgical afflictions such as tabes, hysteria, abdominal angina, lead colic, and gastric colic of drug addicts.

He then discussed the more common surgical conditions such as perforating ulcer, perforating carcinoma, gall bladder conditions, and acute pancreatitis and stated that it is very difficult to make a definite diagnosis in the latter condition. He emphasized the importance of early localized abdominal rigidity and tenderness as being of great assistance in making the diagnosis.

Dr. J. B. Jackson, Kalamazoo, Chairman State Council gave a paper on Periodic Physical Examinations. This paper was very well given and contained many practical and useful thoughts upon the advisability and growing demand for periodic examinations of the apparently well.

A motion was made, supported and carried that each member of our County Society be examinated before the next meeting.

A Manual with blank was given to each member present.

H. M. Maynard, Secretary.

INGHAM COUNTY

On Thursday afternoon, July 15 the Society held a picnic at Bancroft Park, which was well attended, considering the fact that several of our doctors are on their annual vacations.

We started the afternoon with a golf tournament, the men being matched in advance and all starting on schedule time.

It was the first opportunity many of us had to try the new Groesbeck Municipal Links.

The tournament called for 12 holes of golf and about 14 of the men played.

First prize went to Earl McIntyre, second prize to Harold Wiley and consolation prize to Ford DeVries.

The winner of the consolation prize was a triple skeptical as to the mathematical ability of some of his competitors particularly when it came to counting.

One of the foursomes included our friend Harvey George Smith and I understand he learned something about golf and something about the Queen's English.

The barnyard golfers had their fun with the horseshoes and concensus of opinion says J. McCrumb carried off the honors.

Harry Weinburgh started his baseball teams and by their general appearance on coming in to eat indicated that a vicious struggle must have taken place.

Fred Drolette cooked hundreds of steaks and there weren't enough scraps left to feed somebody's poor Airdale who was hanging around the fire with a lean and hungry look.

No one had trouble with the watermelon except the waiters who laid aside a nice one for themselves, after the rest had been served, only to find it had not yet acquired its proper maturity.

All in all a splendid picnic, no accidents and no casualties to remind us of our daily routine.

C. F. DeVries, Secretary.

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

ANNUAL REPRINT OF THE REPORTS OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR 1925: Cloth. Price, postpaid, $1.00. Pp. 90. Chicago: American Medical Association, 1926.

This volume contains the reports of the Council on Pharmacy and Chemistry that have been adopted and authorized for publication during 1925. Some of these reports have appeared in The Journal of the Medical Association. Others are now published for the first time.

The annual volumes of the "Council Reports" may be looked upon as the companion volumes to New and Nonofficial Remedies. While the later describes the medicinal preparations that are found acceptable, the former contain reports on the products that were not accepted. The present volume contains reports on the following products which the Council denied admission to New and Nonofficial Remedies: Agrilin; Benzyl Viburnum Compound; Bichloridol and Salicidol; "Colloidal Gold"; Diabesan; F. & R.'s Genuine Gluten Flour; Geroxide; Hoyt's Gluten Bran Flakes; Hsore Dung Allergen-Squibb, House Dust Allergen-Squibb, LePage's Glue Allergen-Squibb and Street Dust Allergen-Squibb; Incitamin; Liposan; Loeser's Intravenous Solution of Calcium Chloride; Loeser's Intravenous Solution of Sodium Thiosulphate; Mercodel; Orargol; Parathyroid with Calcium; Pollen Extract Gramineae, Pollen Extract Chenopodiaceae, Pollen Extract Ambrosiaceae and Pollen Extract Artemisias-P. D. & Co.; Rayminol; Rheumeez; Mitysol; Some Wagner's Preparations; Tablets Calcreose with Iodine; Digifortis; Trepol and Neotrepol; Tricalcine; Viriligen, Glandular Comp. and Pineal Comp.; Vitalait (Vitalait Laboratory, Inc., Newton Centre, Mass.) and Vitanol.

The volume also contains reports on products which were included in former editions of New and Nonofficial Remedies but which will not appear in the 1926 edition because they were found ineligible for further rencognition.

The volume contains reports of a general nature: for instance a report on the use and utility of digestive enzymes in therapeutics and a preliminary report on spleen and red bone marrow.

Physicians who keep fully informed in regard to the value of proprietary remedies will wish to own this book.

NEW AND NONOFFICIAL REMEDIES, 1926: Containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1926. Cloth. Price, postpaid, $1.50. Pp. 459+XLIII. Chicago: American Medical Association, 1926.

New and Nonofficial Remedies is the publication of the Council on Pharmacy and Chemistry through which this body annually provides the American medical profession with disinterested critical information about the proprietary medicines which are offered to the profession and which the Council deems worthy of recognition.

An examination of the preface shows that in addition to inclusion of the new drugs which were accepted during the past year, the book has been extensively revised. Many of the preparations listed in the previous edition have been omitted and the descriptions of others have been revised to bring the statements into accord with present day knowledge. Among the products that were accepted during the past year and which are included in the new edition are scarlet fever toxin preparations used to determine susceptibility or to establish immunity and curative scarlet fever antitoxin; a parathyroid extract of determined effect on the calcium content of the blood serum; two antimony compounds for use in trypanosomic infections; trypasamide, developed in the Rockefeller Institute for Medical Research; tetraiodobladder and hexyresorcinol, developed by Veader phthalein sodium for the visualization of the gall-Leonard.

The book contains a cumulative appendix (printed on buff paper), which is a list of references to reports of the Council and to other publications dealing with articles not described in New and Nonofficial Remedies. This appendix is thus a valuable and quite extensive bibliography of proprietary and unofficial preparations.

In reference of the work of the Council on Pharmacy and Chemistry, the Board of Trustees of the American Medical Association in their report to the House of Delegates stated that the success of the Council's endeavors will depend less on the work done by the Council than on the support that is given by the rank and file of the medical profession and that this support can be most efficiently given by physicians (and with fullest justice to themselves and their patients) by confining their use of proprietary medicines to those that have been found acceptable for inclusion in New and Nonofficial Remedies. The physician who desires to support the Council actively should therefore obtain a copy of the 1926 edition. Every physician has need for a book of reference such as this volume to which he may turn for trustworthy information with regard to proprietary medicines.

PRACTICE OF OBSTETRICS: Edgar—Vaux. 6th Edition. Revised. 684 Illustrations, 38 Colored, 5 Colored Plates. 8vo. xvi + 779 Pages. Cloth, $8.00. By J. Clifton Edgar, Emeritus Professor of Obstetrics and Clinical Midwifery, Cornell University Medical College. Revised by Norris W. Vaux, Clinical Professor of Obstetrics, Jefferson Medical College, Philadelphia. P. Blakiston's Son & Co., 1012 Walnut St. Philadelphia.

The editor has made the text as concise as practicable from the clinical standpoint; each division and subdivision of pregnancy has received sharp criticism by the editor.

Prenatal care and Hygiene as well as the follow-up care of a maternity case has been thoroughly discussed.

Stress has been laid on labor, and due attention given to anesthetics and the methods of administration. The preparation of cases and after-treatment are clearly set forth. The toxemias are fully presented and much new material added.

The complications of pregnancy are considered in detail over the entire subject. Discussion of the mechanism, though much simplified, is yet comprehensively set forth. The complications of labor and puerperium have been given in detail. Version, Caesarean Section, Rupture of the Uterus, Forceps and Placenta Praevia, and many other subjects have been virtually rewritten.

The diagnosis of the position and pelvimetry has been reviewed and the entire subject put on a concise working basis. Sepsis, Hemorrhage, and Blood Transfusion are fully presented. The Endocrine Therapy has been simplified and confined to practical essentials.

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Original Articles

IODINE IN THE TREATMENT OF GOITRE*

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Goitre has been treated by substances containing iodine since an early period in the history of medicine, but more recent advances in our knowledge of this disease have made clear the possibilities and limitations of this therapy.

The historical relationship between iodine and goitre forms a fascinating chapter in medical annals. The first authentic record of the use of iodine for goitre is by Roger of Palmero[1], in the thirteenth century, who gave it unwittingly in the form of ashes of sea sponge. Coindet[2] in 1820 first advised the use of iodine as a drug for the treatment of goitre from which time it has been used with more or less empiricism until the present. In the search for the cause of goitre among the innumerable theories advanced was the idea that it was due to a lack of iodine. Prevost[3] in 1830, followed by Maffoni[4], Inglis[5] in 1838 and others, claimed an iodine deficiency in the water in goitre regions. Chatin[6] in 1852 demonstrated a low iodine content in the air, water and soil in places where goitre was endemic. His work was, unfortunately, successfully attacked and discredited at the time.

Halstead[7] in 1896 showed by experimental work on dogs that an animal could function normally with one-eighteenth of the normal gland. He also demonstrated that dogs having too little thyroid tissue would bear goiterous pups and if the parents be later fed iodine they would bear pups with normal glands. In 1895 Baumann[8] found that iodine in organic combinations was normally present in the thyroid and other investigators studied this compound until Kendall[9] in 1914 isolated it in crystalline form as thyroxin.

Marine[10] and co-workers in 1909 in studies of the relation of the structure of the thyroid to its iodine content demonstrated that involution of hyperplasia to a colloid form could be brought about by administration of iodine.

During the early period of the use of iodine in the treatment of goitre it was found that many patients developed symptoms of hyperthyroidism. This condition was called iodin-Basedow by Breuer[11] and its dangers were so emphasized by Kocher[12] that by many its use was abandoned. Marine and Kimball[13] in 1917 showed that small doses of iodine had a striking and prophylactic and curative effect when given to school children in a goitre district. This observation has since been widely confirmed. Plummer[14] by his classification of goitre with separation of the exophthalmic from the adenomatous goitre had prepared the way for intelligent treatment and in 1923 he reported the first extensive study of the effect of iodine on exophthalmic goitre.

The use of iodine in the treatment of goitre may be considered in three phases. As a prophylactic agent for endemic goitre, as a treatment for endemic goitre and as a treatment for exophthalmic goitre.

Its use as a preventive measure for endemic goitre seems firmly established by many observers. The choice of methods of administration of the small amount of iodine necessary is still a matter of controversy. Iodine seems valuable no matter how given, but must be used in small amounts over long periods of time to be effective. Its administration in salt seems a satisfactory method when the entire population is to be protected. In a recent report from Cleveland, Hartrock[15] states that many individuals with goitre are precipitated into a state of hyperthyroidism by the use of iodinized salt. In the University Hospital we have observed about 1,800 patients with goitre since the use of iodinized salt became general and we have not been able to convince ourselves that any appreciable number of cases with hyperthyroidism were brought to this condition by the use of iodinized salt. The ideal plan of administration of iodine, is perhaps still to be found.

Since endemic goitre may develop during

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foetal life, during the growth period and during pregnancy and lactation, any scheme of goitre preventive must provide for the injestion of iodine through these periods.

The treatment of endemic goitre by iodine is successful in a large number of cases during the adolescent age. As the maximum storage capacity of the thyroid is only 25 mg. of iodine, only small amounts of the drug should be used, given over long periods of time. After the age of twenty-five in all cases with definite adenomata present, iodine should not be used as we have seen no permanent benefit come from its use and great harm may result. The use of iodine in any form for the cure of adenomatous goitres is ineffective and highly dangerous and many cases are seen yearly with marked hyperthyroidism as a result of the therapeutic administration of iodine. In the effort to popularize the use of iodine as a preventive measure against goitre, much publicity has been given the subject and many of the laity are now taking iodine to cure goitre, on their own initiative, with dire results. The use of patent goitre remedies also contributes to the sum total of the induced hyperthyroid cases. It is common to see individuals with adenomatous goitre with marked exacerbation of hyperthyroid symptoms induced by the use of Lugol's solution because of a mistaken diagnosis for exophthalmic goitre or because of a mistaken belief that it has a curative effect in this group of goitres. The use of iodine in the treatment of any form of endemic goitre in adults must be carried out with greatest discretion and with the knowledge that little benefit can be derived and marked dangers expected.

The use of Liquor Iodi Compositus or Lugol's Solution in the treatment of exophthalmic goitre has been carried out in this clinic since 1923. Our observations cover about 300 cases and our results coincide with the published reports of Plummer[16] and Boothby, Means and Starr[17] and others. We wish to emphasize the fact that Lugo's Solution will not cure exophthalmic goitre and is only an adjunct in the treatment of this disease. This drug finds its great field of usefulness in cases of exophthalmic goitre, but it also may be used with benefit in certain cases of adenomatous goitre. The so-called mixed type in which adenomata and hyperplasia exist in the same gland is found in about 4 per cent of our cases of adenomatous goitre. The condition may be suspected, if in a patient with an adenomatous goitre, there be found exophthalmous, marked nervousness or a high elevation of the basal metabolic rate. Even though an error in diagnosis is made and one is dealing with the pure adenomatous type, we have not seen any harm result from the use of Lugol's Solution over the short time that this drug should be used prior to operation. The marked improvement usually observed in the exophthalmic and mixed types will not occur in the pure adenomatous forms, but in cases of doubt it should be given. Even if used in a routine manner in all cases with hyperthyroidism we do not believe that harm will result if it is employed solely as a pre-operative measure, for a limited period of time.

Our observations confirm the published reports of Plummer and Boothby[16], Means and Starr[17] and others. In the majority of cases treated there has been noticed marked improvement in both objective and subjective phenomena. There is a gain in weight, a fall of pulse rate, a remarkable diminution of the nervousness and mental irritability. The sickest cases with diarrhea, vomiting and psychic manifestations will improve to the point at which they become a safe operative risk. On the other hand a certain number of patients have not responded so definitely and in a few cases not at all to the administration of Lugol's Solution. We are not able to prophesy which cases will act favorably and it can only be determined by trial. Iodine being a relatively new method of therapy, it is natural, its limitations not being recognized, that untoward sequlae, should result from its general use. Iodine given over a long period of time to patients with exophthalmic goitre is a dangerous and harmful drug. One sees, not infrequently, the victims of its abuse, the over iodized hyperplastic goitre. These patients present a clinical state of greater severity than their original condition. Their symptoms are increased in intensity at times to the point of diarrhea, vomiting, arricular fibrillation and cardiac decompensation. They are difficult to handle as one of the important means of decreasing toxicity is no longer available. It is necessary in their cases to wait for elimination of iodine which means a long period in bed with systematic treatment. Some of these patients never again react in the usual brilliant manner to iodine even after waiting many months. The patient sustains greater damage during this time of extreme toxicity and is always a far poorer operative risk than in his original untreated state. A strident note of warning should be sounded to those who are not familiar with the harmful effects of Lugol's Solution.

At the present our routine in the handling of exophthalmic goitre is to give 15 drops of Lugol's Solution per day in the case of ordinary severity. If the patient enters the hospital in a hyperthyroid crisis presenting gastro-intestinal symptoms or a toxic pychosis, the dose is doubled or trebled as the case demands, and is

given in normal Saline Solution by hypodermoclysis. The rectal method of administration is not used as it is not as reliable.

Under this routine there is observed a marked remission of symptoms in about 90 per cent of the cases. The gastro-intestinal symptoms, tachycardia, basal metabolism and nervousness improve within a few days. The time of maximum benefit varies, but is usually in from eight to twelve days. Some of the mild cases are restored to a nearly normal condition, but the majority show only marked improvement with a drop in the basal metabolism to between 20 and 30 per cent above the normal. Approximately 10 per cent are not markedly influenced by the drug. Even though a marked change is not noted, we feel that the Lugol's Solution had been of benefit by definitely lessening the severity of the operative reaction. If the iodine is continued after the maximum improvement is reached, the patient remains in about the same condition for a period of time that varies with the individual, usually about three to four weeks. At this time there is a gradual increase in the severity of the symptoms until the entire picture may be worse than that prior to the beginning of treatment. If during the period of remission the use of iodine be diminished there will be a sharp return of symptoms which may reach their original level. The readministration of iodine will again cause a remission. Even in the period of over-iodinization with marked symptoms there will be a further increase in the severity of the symptoms for a few days when the iodine is stopped. The time selected for operation is usually from four to six days following the time of maximum improvement, which is about ten to sixteen days after the admission to the hospital. In many patients, operation, undoubtedly, could be done safely at an earlier period, but it is in general safer to wait the extra few days. Following operation a subpectoral infusion of normal saline solution is given in which are placed thirty drops of Lugol's Solution. The following day 15 drops are given and continued until the patient is discharged from the hospital, in from 7 to 10 days. The patients are instructed to take 5 drops of Lugol's Solution a day for the ensuing 10 days. It is not clear whether this post-operative regime is rational, but we have not observed any ill effects from its use.

In the "over Lugolized" case we do not know the length of time that must elapse before the favorable iodine remission will again occur. It will be a period of several weeks, perhaps months at best. In the operative treatment of this group we have resorted to the fractional operative procedure of ligature with later complete operation. Prior to the use of Lugol's Solution we did ligations on about 30 per cent of the exophthalmic goitre cases coming for opreative treatment, since its use we have been obliged to resort to ligation in only 2 per cent of these cases.

Definite changes occur in the thyroid gland (gross and microscopic) following the use of Lugol's Solution. The gland becomes firmer at times assuming almost the hardness of a neoplasm, it is very friable, less vascular and on cut section thin colloid can be seen to exude. Microscopically there occurs a transformation of the hyperplasia to a colloid state. The colloid is of a watery consistency, staining less deeply with eosin.

There is an epithelial resolution of the thyroid tissue almost to a normal state, but there is a persistent hyperplasia of the lymphoid tissue, which marks it as a Graves disease. These changes are of varying degrees, some cases showing very little change after the usual course of Lugol's. In the adenomata rendered toxic by the over use of iodine there is noted microscopically a tendency to active proliferation of the adenomatous cells with hyperplasia of the lymphoid tissue and in some cases the entire goitre has been transformed into a mass of lymphnodes with large exhausted germ centers. Warthin[18].

The use of Lugol's Solution in exophthalmic goitre has, by producing great and rapid improvement in the patient's condition before operation and by the marked reduction of the severity of the post-operative reaction, greatly lessened the mortality of the operative treatment. It has not by any means made this form of treatment free from danger and with its use one must still exercise every precaution and not forget the lessons previously learned. There is perhaps a tendency to disregard too much the value of the fractional surgical procedures and even now one should bear in mind that we should always stop short of doing too much.

SUMMARY

1. Iodine in minute amounts will prevent endemic goitre.

2. Iodine in small doses will cure many endemic goitres of adolescence.

3. Iodine given in any form to adults with endemic goitre does not cure and may precipitate hyperthyroidism.

4. Lugol's Solution should be given to patients with exophthalmic goitre or the mixed type of goitre.

5. It will not cure these cases.

6. It usually causes a remission in from eight to twelve days.

7. Its prolonged use will be followed by a recurrence of all symptoms at which time treatment is difficult.

8. Its chief use is as a preparation for operation.

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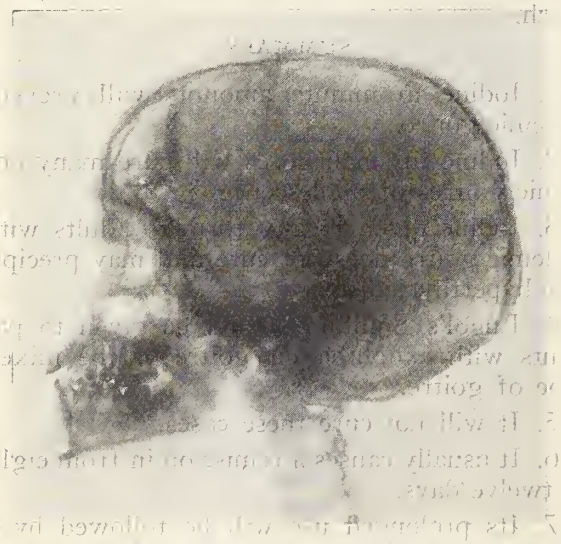
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BRAIN INJURIES

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In traumatic brain lesions, the surgeon is only concerned with the type and degree of injury to the cranial contents. The x-ray may reveal a long linear fracture of the vault or a fracture of the occipital bone from the forearm mangnum to the lamboid suture, and in the absence of localizing brain damage, there is nothing to do aside from the routine treatment of surgical shock. The attitude of many is a blanket order of non-interference in cases of skull fracture which is to be regretted because there is so much to be done and, if seen early, the mortality rate in cases of brain injury can be definitely reduced.



No, 1—Comminuted, depressed fracture of the left frontal. The line of fractude extends into the left orbit.

There are 117 cases of brain injuries in my recent series. Of this number, 43 died and 74 were discharged living. Twenty-two of the fatal cases expired during the first 24 hours.

It may also be of interest to note that out of 4,900 fatalities recorded in the coroner's office, 512 were due to brain injury.

OPERATIVE INDICATIONS

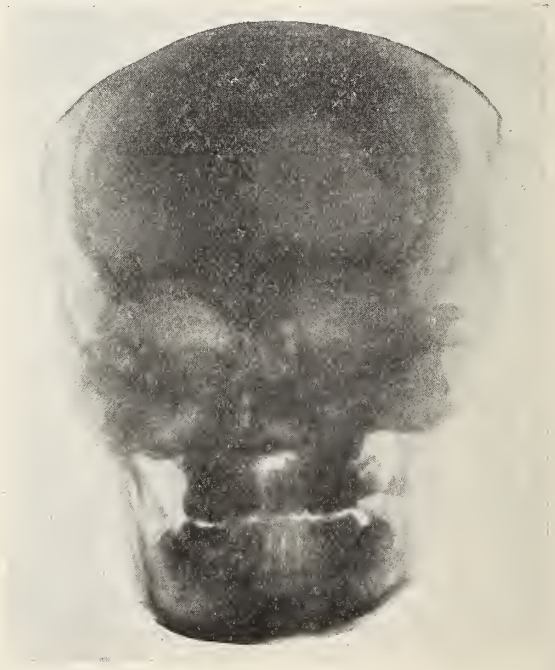
Operative interference is indicated and imperative under the following conditions:

1—When the bone fragments are depressed to the extent that they impinge on the dura (whether with or without symptoms).

2—Presence of paralysis or generalized convulsions.

3—Hemmorrhage (extra or intradural).

Rather than refer to the diagnosis, symptomatology and treatment of fractures of the base as distinct in their classification from fractures of the vault of the skull, it is preferable to



No. 2—Anterior view of case shown in Plate No. 1. The brain hernia has been reduced and the rib graft inserted. Complete recovery.

think of these cases as intracranial trauma. It is certain that early operative interference is not necessary in fractures of the base, but the vast majority of this type are compound and, therefore susceptible to infection, degeneration and various complications. The prognosis depends on the surgeon's acuteness in preventing subsequent pathology.

SYMPTOMS

Pulse Rate—The characteristic pulse in brain injuries is slow and full. It is a definite sign of cerebral compression or intracranial tension,

but without other localizing symptoms it should act only as a "stop, look and listen sign." The compression may not be severe enough to cause damage to the vital centers and with rest a reaction and recovery may take place.

Temperature—Immediately after the injury there is a lowering of body temperature, which may be produced by systemic shock. This lowering is followed by a rise during the reaction. The degree of temperature depends on the severity of the brain injury. When it passes 103 degrees F. in the first 24 hours, the prognosis is poor and the cases usually terminate fatally. This high temperature rise is not seen in brain hemorrhage with localizing symptoms, but rather in basal fractures or linear fractures of the vault. I am inclined to classify the high temperature fatal case, as one of brain laceration or severe concussion. In my series there is a corresponding rise in the respiration and pulse rates.

Blood Pressure—It is true that the blood pressure is low when taken immediately after the injury and will become progressively lower



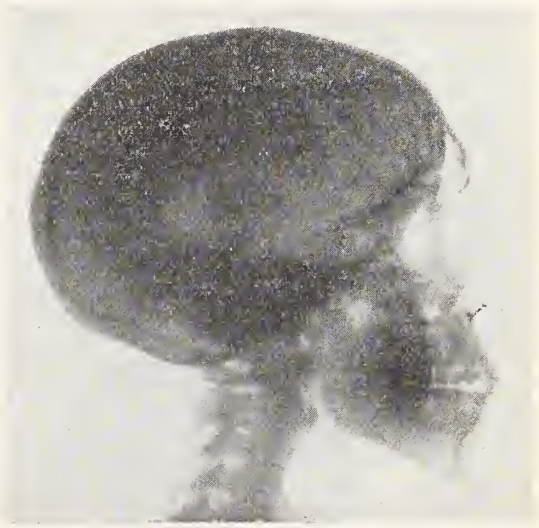
No. 3—Extensive fracture through the left temporal region extending through the mid portion of the left parietal obliquely downward and forward through the cribriform plate of the ethomid extending just anterior to the sphenoidal sinus.

as the patient goes on to a fatal end, but this is also true of systemic shock. I do insist on frequent pressure readings in cases under observation, and in my opinion it is of great value, but has no definite relation to intracranial tension.

Spinal Fluid Pressure—The intracranial pressure may be great and yet not register a rise when a spinal puncture is done. I believe that the spinal manometer is a valuable instrument in brain tumor cases, but unimportant in traumatic lesions. The character of the fluid, whether clear, blood stained or purulent, is of great importance. The presence of a uniformly blood stained fluid indicates bleeding into the subarachnoid spaces or ventricles.

Eye Grounds—In the early stage of an acute negative and, therefore, of no assistance, yet, injury, the ophthalmoscopic findings are usually an invaluable aid in late cases and in chronic brain pathology. The hyperemia of the discs, the character of the vessels, the edema of the nasal halves in conjunction with other leads, often help us to a plan of procedure.

Late Complications—It is an established fact that the motor centers are in front of the Rol-



No. 4—Old decompression defect in the left parietal temporal region. There appears to be some bridging across of new bone in the antrior narrowing portion of the defect. The rectangular section of bone seen below the defect was wedged in after the subdural clot had been removed and the middle meningeal artery ligated. Operation two years ago. Complete recovery.

andic or central fissure and are divided into the head center below, with arm, trunk, abdomen, and leg centers extending correspondingly upward. An injury of the brain in this motor area will cause epilepsey of the Jacksonian type. A convulsion without unconsciousness, beginning always in the same center, either the fingers, arms, body or legs, indicates the site of the lesion in the opposite side of the motor cortex. This variety of epilepsy must be distinguished from the idiopathic type.

Brain Abscess—About 15 per cent of the brain abscesses are said to be traumatic. The usual causes are fractures of the vault infected from without, fractures through infected sinuses, and penetrating wounds of the skull. Middle ear disease is the most common nontraumatic cause of cerebral abscess, although this condition often develops after sinus involvement, or metastatic infected foci from elsewhere. Statistics show that 60 per cent of all abscesses are in the temporo sphenoidal lobe, 25 per cent in the cerebellum and 15 per

cent in the frontal lobe or other parts of the cerebrum.

Traumatic abscess is usually in the direct line of the original injury. It may be free or it may be encapsulated and it is usually a single. When in the motor cortex, it often induces epilepsy.

I find it convenient in classifying symptoms to divide them into acute, dormant and exacerbating types. The acute type has an almost immediate progressive onset; the fever is high and accompanied by delirium, anorexia and vomiting. This type resembles a purulent meningitis, and in the absence of focal symptoms, it is difficult to make a definite diagnosis.



No. 5—Fracture through the right half of the cribriform plate of the ethmoid one inch anterior to the sella turcica. Also a linear of the right frontal.

After the abatement of the acute symptoms, drowsiness, stupor and coma set in. The pupil on the side of the abscess may be dilated and fixed. In the dormant type, and an abscess may remain dormant for years and produce only such vague symptoms as headache, mental dulness and impairment of vision as witness my

CASE REPORTS

Case No. 1—J. B.—A southern negro, who had passed the draft board and was in an embarkation camp ready for overseas duty. The strenuous drilling caused him to complain of severe headaches and he was removed to the Base Hospital for observation. Several days after admission, he began having convulsions which increased in severity. His neurological examination was quite negative, as was his history. An X-ray examination of the skull disclosed a knife blade, one and one-half inches in length, penetrating the occipital bone and extending into the brain. More careful questioning helped him to recall a fight about 10 years previous to this time, at which knives were used as weapons, but there was no disability at the time and he had engaged in his regular employment all these years without the least discomfort or knowledge of the knife blade in his brain. It is this dormant type which is so frequently found at autopsy.

A history of previous injury usually accompanies the exacerbating type. The patient has apparently recovered from a skull injury when suddenly a high fever and leukocytosis sets in with all the symptoms of the acute type. There symptoms are followed by convulsions, aphasia, monoplegia or hemiphlegia. The localizing symptoms, either spasmodic or paralytic, indicate the center which is irritated and destroyed, as witness my

Case No. 2—I. L.—Admitted to the hospital September 19, 1924—automobile accident. Patient was semi-conscious and restless. There was an abrasion and contusion of the left face and scalp, and a slowly oozing hemorrhage from the nose and mouth. His lower jaw was fractured. The pupils were unequal, the left being larger than the right. X-ray examination of the skull was negative.

September 24th—Entirely unconscious and delirious with no paralysis. October 2nd—Condition improving. There was a return to consciousness, but a typically septic temperature. At this time, a purulent discharge of the left ear evidenced itself, which the aurist pronounced an otitis media.

Neurological examination disclosed a partial paralysis of the right arm and leg and left facial paralysis. Reflexes extremely active. Diagnosis: Abscess of the brain, left temporo sphenoidal region.

Operation—An ellipitical incision was made and the skull exposed. A comminuted fracture of the petrous portion of the temporal bone was exposed. The loose fragment was removed and the defect enlarged. The dura was tense and there was no pulsation. Immediately on incising the dura, the brain buldged into the wound. Thick staplococcic and streptococcic pus escaped after the cortex was punctured. The opening was enlarged and a cavity the size of a hen's egg exposed.

The patient is making an uneventful recovery.

There was no brain hernia.

An examination of the eye grounds often shows a retinitis due either to pressure or to toxemia. Abscesses develop more frequently in the white matter of the brain because this



No. 6—Fracture beginning just anterior to the mastoid and posterior to the clinoid process, extending obliquely upward and backward to the mid line of the skull.

is less resistant and liquefies more easily than the cortex upon which the pus accumulation impinges.

Recent abscesses contain colored pus and later this pus becomes greenish. Staphylococci and streptococci are the organisms most frequently found in traumatic cases.

TREATMENT

It is well to remember that in traumatic cases the abscess usually lies in the direct line of the injury. Since many abscesses are caused by infection from without, it is necessary to give detailed attention to the aseptic treatment of all scalp wounds, and in fractures of the skull, to treat antiseptically the ears, the nostrils and the mouth. Ballance informs us that a "stalk" of connective tissue forming a sinus-like tract is frequently found between the abscess and the site of entry. Remembering this will prove a valuable guide in locating the lesion.

The factors to be reckoned with in the treatment are the drainage of the abscess cavity and



No. 7—Stellate fracture of the right temporal parietal region. Nuferous fracture lines which are impossible to describe in detail. There is considerable depression of both tables.

the prevention of further meningeal infection. The various operative procedures are to be found in the literature on the subject. The majority of them, however, are inadequate because the abscess frequently closes before sufficient drainage has taken place and a secondary abscess results, or much difficulty is encountered in retaining the various drainage aids.

In a recent issue of Surgery, Gynecology and Obstetrics, Dr. Joseph King describes a complete unroofing and temporary herniation of the abscess cavity, the technic of which appears quite rational and worth consideration.

Finally, after the conclusion of non-operative or operative treatment, whether in cases of fracture of the base or vault, we are confronted by a group of cases which present generalized distressing subjective complaints, such as headache, dizziness, loss of memory, confusion, irritability and unbalance. These chronic symptoms unfit the victims for a normal position in our economic system.

FOREIGN BODY IN RECTUM REMOVED WITH OBSTETRICAL FORCEPS—CASE REPORT

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James D., white man, age 70, employed as caretaker of hunting camp at present, called me recently to attend him on account of severe pain in rectum, and inability to urinate for the past two days.

Upon our arrival at the camp, we found the patient lying on a cot with knees drawn up, unable to stand erect, and practically in shock. He was prespiring profusely, with a subnormal temperature and appeared to be suffering very intense abdominal pain. The case, at first glance, impressed us as a peritonitis. It was rather difficult to elicit a history from the patient, but he finally admitted that he accidently sat on a glass jar, which entered and became lodged in his rectum.

Examination, under ether anesthesia, showed the anus to be greatly dilated and the rectal tissues were protruding, cyanotic, swollen and bleeding rather profusely. On digital examination, we discovered a large mouthed glass bottle with the neck toward the anus, lodged in rectom about three inches from anal opening.

The urinary bladder was distended to the umbilicus. Difficulty was experienced in passing a soft rubber catheter on account of the obstruction in the rectum pressing on the urethra, however, we were able to obtain 52 ounces of dark, foul smelling urine. Heavy traction with the gloved hand failed to dislodge the foreign body from the rectum, although it was possible to rotate the same rather easily.

The patient was removed to the hospital, a distance of 45 miles, where he was given an ether anesthetic. The technique of removal consisted of the instillation beyond the foreign body by catheter of approximately eight ounces of warm sweet oil, the rectum above also was dilated with air, as we considered that the difficulty of removal was due to vacuum formation above the body. Several attempts to remove the bottle manually, failed. We then applied a small 10-inch obstetrical forceps. After strenuous traction without results, we inserted into the bottle a piece of wood crosswise, to which was attached a strong cord. By the combined use of this device and the obstetrical forceps, we were successful in removing the foreign body. The latter proved to be a glass mustard jar of the following dimensions: Greatest diameter 7.1 centimeters; length 9 centimeters.

The patient was unable to void for two days following the operation, making catheterization necessary. Aside from this complication, the convalescence was uneventful. The patient left the Hospital on the third day and had no complaints to offer.

We were naturally curious to know how a bottle of this size entered the rectum. On questioning, the patient stated that he accidently sat on a bottle after bathing. Of course, this appears to be almost a physical impossibility, unless the patient has been in the habit of inserting objects into his rectum. However, he emphatically denied ever having a similar experience. We are inclined to doubt the veracity of this statement.

PUBLIC HEALTH ACTIVITIES

Edited By

MICHIGAN DEPARTMENT OF HEALTH

MATERNITY AND INFANCY PROGRAM

Four years have elapsed (July 1, 1922 to June 30, 1926) of intensive educational work along the lines of maternal and infant welfare by the Michigan Department of Health through the Bureau of Child Hygiene and Public Health Nursing. The main features of the work accomplished in that time are as follows:

1. *Health Conferences for Children, (Preschool Age)*—These conferences have been conducted in all but five of the counties of the state, with special attention given to those counties having a high rural population. The conferences are itinerant and are conducted by a physician and a nurse. A preliminary census is taken of children in the county and arrangements made to examine not over 30 children a day, as a daily attendance of more than 30 would interfere with the efficiency of the examination. Infants and preschool children are given a complete physical examination in the presence of the mother, who is advised as to the physical condition of the child and is referred to her own family physician for any needed medical or surgical treatment. She is also advised on diet, hygiene and habit training and is given suitable literature. A complete report of the history and examination, together with recommendations made to the mother, is sent to the family physician. During these four years, 18,426 children have been examined.

2. *Women's Classes*—These consist of a series of eight lectures and demonstrations by an itinerant unit of physician and nurse on the care of mothers and children. The importance of prenatal care, particularly of medical supervision during pregnancy, as well as medical attendance at childbirth, is emphasized. Demonstrations are given by the nurse and include preparation and sterilization of goods for home delivery, a simple layette, preparation of room, bed and patient for home delivery, and the making of artificial formula feedings. The classes are concluded by a prenatal clinic, at which prospective mothers not under the care of a physician are given a complete physical examination, including blood pressure, urinalysis and pelvimetry, and a specimen of blood is sent to the Department Laboratory for Kahn precipitation test for syphilis. If the patient has decided what physician will attend her at delivery, a complete report, including report on blood test, is sent to him and she is advised to consult him early in pregnancy. The attendance at these classes has been 7,722.

3. *Little Mothers' Leagues*—These are classes in infant and child care for girls from 10 to 15 years of age, conducted by our nurses in connection with the public school. Special effort is made to reach groups in rural schools as these girls marry young and the Little Mothers' Leagues are the only source of information on infant and child care for the great number of girls who do not go beyond the grades. The classes have already had an attendance of 100,422, exclusive of classes conducted by nurses not connected with our department.

4. *Midwife Supervision*—In 1925, midwives reported 3,594 births, proving the need of supervision of these women, most of whom are untrained and none of whom have been under supervision except those in the city of Detroit. Therefore, in 1925, the Michigan Department of Health adopted resolutions govmidwives (reporting in 1923, 1924 and 1925) midwives (reporting in 1923, 1924 nad 1925) and in April, 1926 a nurse was appointed Midwife Inspector. She has already visited 190 midwives in 23 counties. Since this midwife supervision was instituted, 169 requests have been received from midwives for silver nitrate solution, and 48 requests for prenatal literature for prospective mothers under the care of midwives, showing a gratifying desire to co-operate.

5. *Breast Feeding Campaigns*—These have come to be a definite part of our Maternity and Infancy Program, and there is now constantly in the field at least one nurse visiting mothers of young infants, stressing the importance of breast feeding in reducing infant mortality and morbidity. The nurse discusses with the mother her diet and hygiene, the care of the young infant, and also considers problems of older children in the family. Up to July first, 10 counties had been thus surveyed, and now there are three other counties getting this service.

6. *Prenatal Program*—Through prenatal letters (83,142 sent since July 1, 1922) talks, clinics, literature and public health nurses, the

value of prenatal care is being broadcast. A special prenatal program was started in a rural county in January, 1926. A nurse is supplied to the county for a period of one year to work among prospective mothers under the supervision of the local doctors, advising the mothers as to diet and hygiene of pregnancy and urging them to have medical supervision during their entire pregnancy. Any abnormal symptoms which she discovers during her calls are reported at once to the physician and she cooperates with the physicians in seeing that their instructions are followed by the mothers. While it is too soon to report results, it is an undisputed fact that the standards of prenatal care are being raised in the county by this service.

7. Certificates of registration of births have been sent out since March, 1924, to parents of all children born in Michigan, accompanied by a "Message to Parents" on infant care. Up to May 1, 1926, a total of 205,103 certificates have been sent and numerous requests are being received for further information from parents thus reached.

8. In all types of work, the foundation has been laid as much as possible for maternity and infancy work to be conducted under local organizations. To this end, 56 of the 83 counties have been organized with a County Cooperating Health Committee, composed of representative people in the county who will interest themselves in health programs put on in the county, not only by the Department of Health, but also by other organizations, such as Red Cross and Tuberculosis Associations. Seventy-seven permanent mother and baby health centers have been established, which are conducted and financed locally, but which receive literature and supervision from the Department of Health. Little Mothers' Leagues and Mothers' Classes are being conducted by nurses not connected with our Department, but with the approval and aid of the latter. By thus developing local workers, interest is stimulated in all health programs and the standards of infant and maternal welfare raised in the community.—L. R. S.

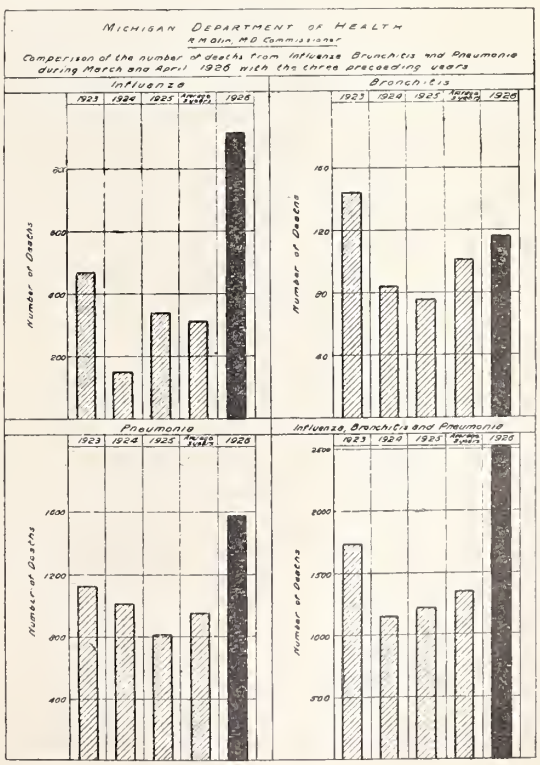
INFLUENZA, 1926

During the past winter, a report from the eastern part of the country indicated a considerable rise in the incidence of influenza and the associate respiratory infections. Later the wave seemed to have jumped to the Pacific coast and became evident in Michigan during March and April.

In the consideration of deaths from influenza, it is necessary to consider not only the deaths in which influenza is stated as the cause, but also the increase in bronchitis, both acute and chronic, and in pneumonia, all forms, including broncho-pneumonia. The reason for this is that, in many cases, physicians do not state the presence of influenza and in fact they frequently do not have the opportunity to see the patient until a pneumonia is well developed and it is possible that they do not get the history of the influenza.

We have, therefore, considered these three causes and we find that during March, 1926, there were certified 402 deaths to influenza, 60 to bronchitis and 851 to pneumonia. During April there were 414 deaths assigned to influenza, 56 to bronchitis and 724 to pneumonia. Taking the two months together, we find 817 deaths assigned to influenza, 116 to bronchitis and 1,575 to pneumonia.

During the early spring of 1923 there was some increase in influenza cases, but we find for the two months of March and April there were 466 deaths, for 1924 there were 150 deaths and in 1925 there were 340 deaths. In bronchitis there were for March and April, 1923, 144 deaths, in 1924 there were 84 deaths and in 1925 there were 76, a total of 116. For pneumonia in March and April, 1923, there were 1,125 deaths. In 1924 there were 909 and in 1925 there were 813. Taking these three diseases together for March and April, we find



2,508 deaths in 1926, compared to 1,735 in 1923, 1,143 in 1924 and 1,229 in 1925. The average number of deaths for these three diseases reported for March and April for the three

years, 1923 to 1925 inclusive, was 1,369, compared to 2,508 in 1926, an increase in 1926 of 1,139 deaths, equal to 83.2 per cent.

The total number of deaths for all causes, for March and April, 1923, were 9,499, equivalent to a death rate on an annual basis of 14.8. In 1924 there were 8,873 deaths, with a rate of 13.7. In 1925 there were 9,209 deaths, with a rate of 13.2, whereas in 1926 there were 11,576 deaths, with a rate of 16.3. Summarizing this we find that March and April for the three years, 1923 to 1925 show 27,581 deaths, a yearly average of 9,193, as compared to the the 11,576 deaths in 1926, an increase of 2,383 deaths, equivalent to 25.9 per cent. This, of course, does not take into consideration the increase in population.

We find that the average rate for the 3 years 1923 to 1925 inclusive, was 13.9, whereas the rate for 1926 was 16.3, an increase of 17.2 per cent. This as compared to the increase in influenza and associate respiratory infections of 83.2 per cent. From this showing it is evident that the state had quite a serious epidemic of influenza during the two months of March and April, 1926, and that the percentage of increase in these diseases was more than three times the increase in the total number of deaths and by far the greatest ratio increase was in those cases reported as influenza directly, either with or without respiratory complications.

While the term bronchitis is not used as commonly in this country as it is in England, it seemed wise to include this cause with pneumonia in consideration of the influenza epidemic. It should be understood that in all those cases in which influenza is given either as the primary or contributory cause, the assignment is given to influenza. But, as stated above, many physicians in certifying pneumonia as the cause of death do not mention on the certificate the presence of influenza, in which case, of course, the classification goes to pneumonia.

A number of practicing physicians have called attention to what they believed to be the changed selectivity in the age groups, in this recent epidemic, as compared with the slight epidemic of 1923 and the more serious epidemic of 1920, and it will be of interest to make a careful study of the attack rate in this epidemic.

The following table gives the figures on which this comment is based:

DEATHS FROM INFLUENZA AND RESPIRATORY INFECTIONS FOR MARCH AND APRIL

	1923	1924	1925	1926
Influenza	466	150	340	817
Bronchitis (Acute and Chronic)	144	84	76	116
Pneumonia and Broncho-Pneumonia	1,125	909	813	1,575
Total	1,735	1,143	1,229	2.508

The accompanying chart illustrates these facts.—W. J. V. D.

WESTERN DIVISION LABORATORY OPENS SEPTEMBER FIRST

The Western Michigan Division of the laboratory of the Michigan Department of Health will be opened for service to the tributary territory September first. Installation is essentially completed at this time, August 5, but we will require the remainder of the month for tuning up the laboratory equipment and adapting the procedure of the Lansing laboratory to the new equipment.

Announcement in circular letter form will be sent to every physician whose name appears in the files of the Lansing laboratory for the years of 1924 and 1925. After the 20th of August containers sent out from the Lansing laboratory will be labelled for mailing to the Grand Rapids laboratory.

Physicians who use the Michigan Department of Health services should consult the Postmaster or Superintendent of Mails in their community for best mail service to Grand Rapids, and govern the dropping of packages somewhat by the train service. In this way the physician can better the service to himself by avoiding delays in his own community.

All inquiries in regard to administration matters or matters that require interpretation of results should be made to the Lansing laboratory.—R. M. O.

SCARLET FEVER FROM THE LABORATORY ANGLE

Scarlet fever as a major problem has various aspects. It presents one problem to the medical man, another to the epidemiologist, and still others to the laboratory workers, particularly, —one to the worker involved in the laboratory diagnosis, and one to the worker whose duty it is to furnish products for the selection of susceptible persons, for their active immunization, and for therapeutic use in serum treatment.

The laboratory diagnosis of scarlet fever has reached a relatively stable and secure position so far as is *practicable.* It is possible to isolate streptococci of the type associated with scarlet fever with reasonable regularity. The question of absolute relation of the particular streptococcus to scarlet fever would require the production of a proven specific toxin, determined by making controlled skin tests on susceptible persons. The technic of this process is reasonably clear, but it is seldom of value to carry it through.

The matter of production of biologic scarlet fever streptococcus products, however, is re-

plete with questions. Scarlet fever streptococcus toxin can be made for skin testing and for active immunization, and can be used in the production of therapeutic serum. After a fashion, these products can be standardized on the basis of definite units (the "skin test dose"). *But,* we are not absolutely certain that there is just one type of scarlet fever in Michigan; there is some reason to believe that there is more than one type, at least if we take in a larger area. Scarlet fever streptococcus toxin in several ways differs in behavior from the other toxins with which we have been longer acquainted. Is it an aberrant toxin, or have we a sample of a whole new group of substances? Under what conditions are our products stabilized, and under what conditions will there be undue loss of potency? The brief space of time during which these products have been produced, and the considerable drawback involved in the fact that we have no test tube or laboratory animal means of standardization, combine to explain our present lack of information on these points. These questions are but few of many.

Our first goal is, of course, to produce a safe and efficient product, despite associated problems. Our second goal is to determine the answers to these questions as accurately and as rapidly as possible, lest we remain as nearly stationary as has the perfectly efficient but cumbersome Pasteur treatment for rabies, which still presents unanswered the questions of Pasteur himself. The first goal is nearly reached; the second will require patience, cooperation, and time. And the patience and cooperation is necessary not only on the part of the producer of biologic products, but also on the part of the medical practitioner, the epidemiologist, and the laboratory diagnostician. The time is ripe for at least a partial resolution of these difficulties, but it is not ripe for too great expectations of the application of the information already at hand.—M. S. M.

PREVALENCE OF DISEASE

July Report

Cases Reported

	June 1926	July 1926	July 1925	Average 5 years
Pneumonia	302	176	158	148
Tuberculosis	454	510	549	499
Typhoid Fever	38	43	69	75
Diphtheria	433	333	203	332
Whooping Cough	566	633	732	708
Scarlet Fever	1,190	641	434	408
Measles	3.833	946	456	754
Smallpox	30	36	43	111
Meningitis	13	9	5	11
Poliomyelitis	3	2	11	16
Syphilis	1,282	1,132	1,049	828
Gonorrhea	892	942	1,012	886
Chancroid	3	7	5	14

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health

July 1926

	+	—	+—	Total
Throat Swabs for Diphtheria				898
Diagnosis	42	403		
Release	95	229		
Carrier		119		
Virulence Tests	6	4		
Throat Swabs for Hemolytic Streptococci				427
Diagnosis	125	203		
Carrier	7	92		
Throat Swabs for Vincent's	41	399		440
Syphilis				6120
Wassermann	7	29	1	
Kahn	1058	4946	77	
Darkfield		2		
Examination for Gonococci	239	1705		1944
B. Tuberculosis				553
Sputum	120	396		
Animal Inoculations	7	30		
Typhoid				352
Feces—Diagnosis	15	135		
Feces—Release	7	16		
Blood Cultures	1	35		
Urine	1	15		
Widal	19	108		
Dysentery				149
Intestinal Parasites				24
Transudates and Exudates				173
Blood Examination (not classified)				504
Urine Examinations (not classified)				332
Water and Sewage Examinations				991
Milk Examinations				97
Toxicological Examinations				5
Autogenous Vaccines				6
Supplementary Examinations				261
Unclassified Examinations				758
Total for the Month				14034
Cumulative Total (fiscal year)				14034
Decrease over this month last year				4605
Outfits Mailed Out				15021
Media Manufactured, c. c				741490
Diphtheria Antitoxin Distributed, units				17657000
Toxin Antitoxin Distributed, c. c.				11030
Typhoid Vaccine Distributed, c. c.				1289
Silver Nitrate Ampules Distributed				14280
Examinations Made by Houghton Laboratory				1165

Official Program, 106th (61) Annual Meeting of the Michigan State Medical Society, Lansing, Michigan, Sept. 14-15-16, 1926

OFFICIAL CALL

Our 106th (61st) Annual Meeting will be held in Lansing on the above indicated days. the following is a condensed synopsis of the official program which will be found on succeeding pages of this issue:

C. G. Darling, President.

J. B. Jackson, Council Chairman.

Attest: F. C. Warnshuis, Secretary.

CONDENSED SCHEDULE OF MEETINGS

September 14th.

Council: 9:00 a. m., 12 m., 6:00 p. m.
House of Delegates: 10:00 a. m., 2:00 p. m., 7:00 p. m.

September 15th.

Combined Meetings: 9:15 a. m. and 1:15 p. m.
Domonstrations, State College, East Lansing 4:00 p. m.
Entertainment, State College, East Lansing 6:00 p. m.
General Session, Prudden Auditorium: 8:15 p. m.
(a) President's Address, C. G. Darling, Ann Arbor.
(b) Address, President Little, University of Michigan.

September 16th.

9:00 a. m. Section Meetings.
12:00 m. Second General Meeting.
1:15 p. m. Section Meetings.

FIRST GENERAL SECTION MEETING

Wednesday—September 15th, 9:00 A. M.

ELKS TEMPLE

9:15 a. m. —Opening Address.
President C. G. Darling

9:30 a. m.—"The Span of Life".
W. A. Evans, Chicago, Ill.

10:00 a. m.—Cardio Vascular System in Diseases of the Tyroid Gland.
C. C. Sturgis, Boston, Mass.

10:30 a. m.—Surgery of the Tuberculous.
Irvin Abel, Louisville, Ky.

11:00 a. m.—New Phases in the Treatment of the Deaf.
Harold Hays, New York City.

11:30 a. m.—Indications and Limitations of Deep X-Ray Therapy.
U. V. Portmann, Cleveland, Ohio.

AFTERNOON SESSION—1:15 P. M.

1:45 p. m.—Blood Transfusions: Indications and Methods.
Alfred Strauss, Chicago, Ill.

2:00 p. m.—What Pathological and Therapeutical Deduction Can Be Made From Hyperplasia of the Thyroid Gland.
C. E. Hoover, Cleveland, Ohio.

2:15 p. m.—Causes and Control of Uterine Hemorrhages.
Channing W. Barrett, Chicago, Ill.

2:45 p. m.—Indications and Contra-Indications for Surgery of Duodenal Ulcer.
E. S. Judd, Rochester, Minn.

Discussion: E. G. Eggleston, Battle Creek, Mich.
Angus McLean, Detroit, Mich.

GENERAL SESSIONS

Wednesday, September 15th

PRUDDEN AUDITORIUM

8:15 P. M.

1. Call to Order—C. G. Garling, Ann Arbor, President.
2. Invocation—Rev. Frank Kingdom, Lansing.
3. Welcome—President Ingham County Society.
4. Announcements—Secretary.
5. Introduction of Guests.
6. President's Annual Address—C. G. Darling, Ann Arbor, Mich.
7. Address—Dr. Little, President, University of Michigan.

SECOND GENERAL SESSION

OLD'S HOTEL

Thursday—September 16th, 12:00 M.

1. Call to Order.
2. Announcements—Secretary.
3. Ballot for President.
4. Introduction of President.
5. Unfinished Business.
6. Adjournment.

SCIENTIFIC SECTIONS

GENERAL MEDICINE

Charman—Frank J. Sladen, Detroit.
Secretary—C. F. Karshner, Grand Rapids.

Thursday—September 16th, 9:15 A. M.

1. Chairman's Address.
Frank J. Sladen, Detroit, Mich.
2. Some Sequelae of Epidemic Encephalitis.
W. H. Marshall, Flint, Mich.
M. S. Chambers, Flint, Mich.
3. The Diagnosis and Treatment of Esophageal Obstructions.
B. C. Lockwood, Detroit, Mich.
Verne G. Hunt, Detroit, Mich.

4. Bronchiectasis, Diagnosis and Treatment.
Stuart Pritchard, Battle Creek, Mich.
5. The Study of Femoral Blood Pressure in 600 Cases with Special Reference to Thyroid Disease.
William Vis, Grand Rapids, Mich.

AFTERNOON SESSION—1:15 P. M.

6. Relation of Pulse Pressure and Pulse Rate to Basal Metabolic Rate.
John B. Jackson, Kalamazoo, Mich.
7. A Case of Hypopituitarism Successfully Treated by Pituitary Substance.
Morris E. Missal, Ann Arbor, Mich.
8. Word Blindness: Difficulties in Reading in Children.
Fred P. Currier, Grand Rapids, Mich.
9. Election of Section Officers.

GYNECOLOGY AND OBSTETRICS

Chairman—Howard Cummings, Ann Arbor.
Secretary—A. E. Catherwood, Detroit.

Thursday—September 16th, 9:15 A. M.

1. Chairman's Address.
Howard Cummings, Ann Arbor, Mich.
2. Some Phases of Dystocia.
Lewis E. Daniels, Ann Arbor, Mich.
3. The Thyroid Gland in Pregnancy.
Wayne A. Yoakam, Detroit, Mich.
4. Endometrial Cysts of Pelvis.
J. P. Pratt, Detroit, Mich.
5. Report of a Case of Tetany in Pregnancy.
6. Prenatal and Postnatal Examination and Treatment.
Alexander M. Campbell, Grand Rapids, Mich.

AFTERNOON SESSION—1:15 P. M.

7. Rupture of the Uterus and Vagina during Labor, with a report of three cases.
Harold Henderson, Detroit, Mich.
M. M. Cope, Detroit, Mich.
8. Gynecological Disturbances of Mechanical Origin.
Norman F. Miller, Ann Arbor, Mich.
9. Pregnancy and Labor Following Gynecological Operations.
R. S. Siddall, Detroit, Mich.
10. Labor in Young Primiparae.
Lawrence McCaffrey, Ann Arbor, Mich.
11. Election of Officers for ensuing year.

PEDIATRICS

Chairman—David M. Cowie, Ann Arbor
Secretary—R. M. Kempton, Saginaw.

Thursday—September 16th, 9: 15 A. M.

1. Chairman's Address.
2. The Use of a Polyvalent Vaccine in the Treatment of Whooping Cough.
Edwin P. Russell, Battle Creek, Mich.
3. Immunization Against Scarlet Fever.
W. C. C. Cole, Detroit, Mich.
4. Prophylaxis and Treatment of Scarlet Fever.
H. E. Bagley, Detroit, Mich.
5. Some Phases of Lactic Acid Milk Feeding.
David J. Levy, Detroit, Mich.

AFTERNOON SESSION—1:15 P. M.

6. Election of Officers.
7. Some Considerations Regarding Prognosis and Treatment of the Anemias of Early Childhood.
Thomas B. Cooley, Detroit, Mich.
8. Title to be announced.
T. G. Brown, Ann Arbor, Mich.
9. Psychological Factors in Human Milk Production.
B. Raymond Hoobler, Detroit, Mich.
10. Liver Function Tests in Children.
Samuel J. Levin, New York City

OPHTHALMOLOGICAL AND OTOLARNYGOLOGICAL

Chairman—John G. Huizinga, Grand Rapids.
Secretary—B. N. Colver, Battle Creek.

Tuesday—September 14th

2:00 p. m.—Surgical and Medical Clinics given by Lansing men.
6:30 p. m.—Section Dinner at Hotel Olds.
8:00 p. m.—Post Graduate Talks.

1. Ocular Equilibrium and Headpain—with lantern slides.
C. W. Rutherford, Indianapolis.
2. Focal Infections with Neurolabyrinthine Involvement.
George MacKenzie, Philadelphia.
3. Endoscopic Cases of General Medical and Surgical Interest.
William F. Moore, Philadelphia.
4. Some of the Newer Advances in Ear, Nose and Throat Work.
Harold H. Hays, New York City.

Thursday September 16th

9-12 a. m.—Clinical Round Table—
There will be three cases presented each hour, giving time for questions, examination of the patients and exhibits, and for discussion. This will be under the general direction of Dr. Ellis, Chairman of the Section.

2-5 p. m.—Election of Officers.
Scientific Papers.
1. Eye—John R. Rogers, Grand Rapids. Report of a series of cases of Foreign Bodies in the Eyeball.
2. Ear—John R. Carter, Detroit. Acute Mastoiditis, with reference to rapid post healing and describing the use of a special drain.
3. Nose—Robert H. Fraser, Battle Creek. Will opague injections (iodized oil) standardize the surgery of sinuses?
4. Throat—A. C. Furstenberg, Ann Arbor. Carcinoma of the Larynx.

HOUSE OF DELEGATES

J. E. King, Detroit, Speaker.
J. G. R. Manwaring, Flint, Vice-Speaker.
F. C. Warnshuis, Grand Rapids, Secretary.

Credential Committee—
G. H. Southwick—Kent
J. H. Dempster—Wayne
A. W. Karch—Monroe
Mary Williams—Bay

FIRST SESSION

September 14th, 10:30 A. M.

1. Call to Order.
2. Report of Credentials Committee.
3. Roll Call.
4. Speaker's Address.
5. President's Address.
6. Report of Council.
7. Appointment of Reference Committees.
8. Election of Nominating Committee of Five. "No Two Members Shall Be from the Same Councilor District." The Duties of the Nominating Committee Are:

(a) Supervise the Ballot for President.
(b) Nominate.
1. Four Vice-Presidents.
2. Place of Next Annual Meeting.
3. Three Delegates and Alternates to A. M. A.

9. Reports of Standing Committees.
(a) Public Health.
(b) Legislation and Public Policy.
(c) Tuberculosis.
(d) Venereal Prophylaxis.
(e) Medical Education.
(f) Civic and Industrial Relations.
(g) Nursing Education.
(h) Standardization of Insurance Blanks.
(i) Delegates to A. M. A.

10. Unfinished Business.
Amendments to Constitution Lying Over Under the Rules.
11. Resolutions and New Business.
12. Recess.

SECOND SESSION

2:00 P. M.

1. Call to Order.
2. Reports of Reference Committees.
3. Unfinished Business.
4. New Business.
5. Recess.

THIRD SESSION

7:15 P. M.

1. Call to Order.
2. Reports of Reference Committees.
3. Report of Nominating Committees.
4. Election.
(a) Four-Vice Presidents.
(b) Councilors, 4th, 5th and 6th Districts.
(c) Delegates and Alternates to A. M. A.
(d) Place of Next Annual Meeting.

NOTE—Councilors are nominated by the delegates from societies comprising Council Districts for which Councilors are to be elected. By our By-Law provision the Secretary will call a caucus of the delegates of Councilor Districts concerned.

5. Unfinished Business.
6. Adjournment.

DELEGATES AND ALTERNATE DELEGATES HOUSE OF DELEGATES

NOTE:—Delegates in Boldface type.
Alternates in Lightface type.

20 ALPENA COUNTY

F. J. O'Donnell
C. M. Williams
S. T. Bell

12—ANTRIM-CHARLEVOIX-EMMETT-CHEBOYGAN

F. C. Mayne
B. H. Van Leuven

14—BARRY COUNTY

B. C. Swift
E. T. Morris

60—BAY COUNTY

Mary Williams
C. A. Stewart

32—BERRIEN COUNTY

Robert Henderson
R. H. Snowden

12—BRANCH COUNTY

F. W. Stewart
S. Schultz

94—CALHOUN COUNTY

C. S. Gorsline
G. C. Hafford
A. F. Kingsley
W. L. Godfrey

17—CASS COUNTY

W. C. McCutcheon
G. W. Green

20—CHIPPEWA-LUCE-MACKINAC

E. H. Webster
Geo. J. Dickison

14—CLINTON COUNTY

Eugene Hart
F. E. Luton

20—DELTA COUNTY

J. W. Towey
A. H. Miller

15—DICKINSON-IRON

20—EATON COUNTY

Phil Quick
H. J. Prall

107—GENESEE COUNTY

Hugh Stewart
Henry Cook
Carl Moll
M. S. Knapp
John Benson
J. G. R. Manwaring

27—GOGEBIC COUNTY

25—GRAND TRAVERSE-LEELANAU

G. A. Holliday
E. F. Sladek

21—HILLSDALE COUNTY

C. T. Bower

41—HOUGHTON-BARAGA-KEWEENAW

I. D. Stern
Simon Levin

8—HURON COUNTY

81—INGHAM COUNTY

Sam Osborn
Fred Huntley
W. G. Wight
O. H. Bruegel

32—IONIA-MONTCALM

F. A. Johnson
I. S. Lilly

28—GRATIOT-ISABELLA-CLARE

C. A. Pullen
C. F. DuBois

65—JACKSON COUNTY

G. C. Hicks
H. L. Hurley
C. S. Clark

108—KALAMAZOO-VAN BUREN-ALLEGAN

L. J. Crum
W. E. Collins
A. E. West
W. R. Vaughn

186—KENT COUNTY

A. V. Wenger
G. H. Southwick
J. D. Brook
H. J. Pyle

E. W. Schnoor
W. E. Wilson
J. S. Brotherhood
R. H. Spencer

22—LAPEER COUNTY

P. E. Martin
H. B. Zemmer

29—LENAWEE COUNTY

A. B. Hewes
A. W. Chase
R. G.B. Marsh

30—MACOMB COUNTY

Charles E. Greene
James E. Curlett

8—MANISTEE COUNTY

H. D. Robinson

33—MARQUETTE-ALGER

A. W. Hornbogen
H. H. Loveland

9—MASON COUNTY

C. W. Spencer
L. J. Goulet

19—MECOSTA COUNTY

O. J. East
J. Gillett

11—MENOMINEE COUNTY

W. S. Jones
S. C. Mason

6—MIDLAND COUNTY

George Orth
E. J. Dougher

24—MONROE COUNTY

A. W. Karch
W. F. Acker

57—MUSKEGON COUNTY

Frank W. Garber, Sr.
E. L. Kniskern

8—NEWAYGO COUNTY

J. C. Branch
C. A. Mateer

77—OAKLAND COUNTY

Nathan B. Colvin
Frank Mercer
B. M. Mitchell

8—OCEANA COUNTY

J. H. Nicholson
A. R. Hayton

9—OTSEGO-MONTMORENCY-CRAWFORD-OSCODA-ROSCOMMON-OGEMAW

Frank E. Abbott
C. R. Keyport

6—ONTONAGON COUNTY

E. J. Evans
W. B. Hanna

OSCEOLA-LAKE

27—OTTAWA COUNTY

R. H. Nichols
H. J. Cherry

52—SAGINAW COUNTY

D. E. Bagshaw
A. E. Leitch

11—SANILAC COUNTY

John E. Campbell
G. S. Tweedie

5—SCHOOLCRAFT COUNTY

28—SHIAWASSEE COUNTY

J. J. Haviland
W. E. Ward

46—ST. CLAIR COUNTY

C. C. Clancy
A. L. Callery

21—ST. JOSEPH COUNTY

18—WEXFORD-KALKASKA-MISSAUKEE

S. C. Moore
W. J. Smith

19—TUSCOLA COUNTY

R. L. Dixon
C. W. Clark

46—WASHTENAW COUNTY

Theron S. Langford
James D. Bruce
S. G. Bush
George F. Muehlig

1141—WAYNE COUNTY

Baumgarten, E. C.
Bell, John N.
Biddle, Andrew P.
Carstens, H. R.
Cassidy, Wm. J.
Chester, John L.
Clark, R. L.
Cole, F. H.
Dempster, J. H.
Dibble, Harry F.
Dutchess, Chas. E.
Gardner, H. B.
Henderson, L. T.
Hewitt, H. W.
Hirschman, L. J.
Kelly, Frank A.
Kimzey, J. Albert
Loucks, R. E.
McGarvah, J. A.
McKean, Richard M.
McLean, Angus
Stapleton, Wm. J.
Walker, Roger V.
Wilson, Walter J.
Yates, H. W.
Baker, Geo. J.
Bookmyer, R. H.
Brooks, C. D.
Catherwood, A. E.
Chene, Geo. C.
Clinton, Wm. R.
Diebel, Wm. H.
Donald, Douglas
Hamilton, Wm.
Healy, G. H.
Kennedy, Chas. S.
Kenning, J. C.
Kersten, Werner
Ledwidge, P. L.
Mills, E. P.
Richey, E. B.
Royce, F. D.
Seeley, Ward F.
Shawan, H. K.
Smith, Roy
Stone, D. D.
Wendt, L. F. C.
Whittaker, A. H.
Wilson, Gerald
Woodworth, Wm.

SPECIAL COMMITTEES FOR ANNUAL MEETING

Publicity Committee—Dr. DeVries, Chairman; Dr. Cushman, Dr. Barthelmew, Dr. F. Jones.

Session Halls and Meeting Places Committee—

Dr. Carr, Chairman; Dr. Gardner, Dr. Owen, Dr. Olin, Dr. Towne.

Registration Committee—Dr. Wiley, Chairman; Dr. H. Miller, Dr. Wight, Dr. P. C. Strauss, Dr. Welch.

Hotels and Room Accommodations Committee—Dr. Christian, Chairman; Dr. Hart, Dr. Freeland, Dr. D. Snell, Dr. Gauss.

Entertainment Committee—Dr. Drolett, Chairman; Dr. McIntyre, Dr. McNamara, Dr. Breugal, Dr. Niles.

Reception Committee—Dr. Davey, Chairman, Dr. Osborn, Dr. Haze, Dr. Barthelmew, Dr. Ellis.

Automobile and Parking Committee—Dr. Weinburgh, Chairman; Dr. Randall, Dr. F. Huntley, Dr. Brucker, Dr. McCrumb.

STANDING COMMITTEES' REPORTS TO THE HOUSE OF DELEGATES

Our Standing Committees' Report to the House of Delegates. In order that Delegates and members may be familiar with their contents and intelligently discuss them when action is taken, we are publishing them at this time:

REPORT OF PUBLIC HEALTH COMMITTEE.

Your Committee on Public Health desires to offer the following report. We find after a rather comprehensive survey of the various sections of our State, that the Public Health situation is good; No serious epidemics have occurred during the past year. It must not be forgotten, however, that much remains to be accomplished in the field of preventive medicine before we reach the ideal. Tuberculosis is the great problem that confronts us. We find for instance that there is at least one case of open Tuberculosis to every one hundred and eighty inhabitants in Michigan at the present time. If this were the situation as regards Small Pox, action at curtailment would be very prompt and vigorous. Tuberculosis, however, is so slow and insidious in its attact that we are inclined often to disregard its approach. Uu to very recent times the tendency has been to give our whole attention to this disease in its insipincy. We believe this is wrong. It is the open case of Tuberculosis that is our greatest mcnacc and not the beginning case. We cannot hope to curtail this disease to any great extent until we come to the time when we will be in a position to do more for the advanced case than is being done at present. These patients need hospitalization much more than beginning cases; They need careful well directed, and intelligent home instruction just as much or more than do the incipient. For this reason cvery County in Michigan should expend at least $200,000 for a Tuberculosis hospital. Not so much perhaps as a permanent domicile for these unfortunates, but rather as a clearing-house for intensive training in better modes of living at home. This, to-gether with a well directed "follow up" surveilance by a staff of county nurses, we think will greatly advance the work. We believe also that another highly important duty that the State must perform, to make this work successful, is the establishment of thc County Health Officer system. In our opinion Tuberculosis work as well as all other public health endeavor will be made more successful under the direction of a trained full time Health Officer. We, therefore urge upon our Committee on Legislation and Public Policy to bring the matter of full time County Health Officers to the attention of our State Legislature at its next session.

In our opinion, two solutions suggest themselves if we wish to bring the subject of Tuberculosis in Michigan, to a successful issue. Either we must treat all open cases of this disease as incurables and hospitalize them as such; or we must furnish competent Health Officers to supervise, and trained physicians to treat these people, and nurses to care for them. All these things must be done in order to curtail and eventually wipe out Tuberculosis in Michigan. We therefore, respectfully ask our Council to call the attention of our next legislature to the subject-matter of this report.

Respectfully submitted,
John A. Wessinger.
C. S. Gorsline.
R. C. Mahaney.
W. J. Kay.
Frank A. Kelly.

REPORT OF TUBERCULOSIS COMMITTEE.

The Tuberculosis Committee of the Michigan State Medical Society has had no meetings this year, but by correspondence has sought to establish a line of activity which might be carried forward by the society. It is the consensus of opinion of the committee that the local societies should be encouraged to give some place on their program to the presentation of clinical problems in the tuberculosis field. Such programs can be aided by lectures by specialists in tuberculosis from the State Society; there being a number of very excellent men available for this work, resident in Michigan.

There has been no legislative action this year in the field of tuberculosis, but there have been several county senatoria projected or construction started as a result of the encouragement of state aid, granted by legislative enactment of the previous year.

Michigan is still far bchind in caring adequately for those with tuberculosis and it behooves every local society to study its own situation. The committee fecls that no one better understands the need for care of the tuberculous in our various communities, then the physician and he through his organization should lead the way for more adequate state and county provision for these unfortunate patients.

It is encouraging to know that five new county sanatoria havc been opened within the last five years and with those building or projected the number will soon be eleven.

The United States is host this year in October, to the International Congress on Tuberculosis. It is hoped to bring some of thc distinguished foreign guests to Detroit following this Congress, so that the profession in Michigan may have the opportunity of seeing and hearing them. This is being undertaken by various organizations interested in Tuberculosis including your committee.

Respectfully submitted on behalf of the Tuberculosis Committee,

B. H. Douglas, M. D.
Chairman.

DISASTER RELIEF.

Dear Doctor Warnshuis:—

Please find enclosed two copies of the report of the Committee on Medical Relief in Disaster, adopted by the House of Delegates of the American Medical Association at its Dallas Session.

This report is officially transmitted for submission to your state association for consideration and action. Copies of the report have been sent to the secretaries of all component county societies for submission to these societies. The county secretaries in your state have been requestcd to notify you by their societies. This was done in order that your office might be relieved of the work involved in submitting the report to the county societies.

Please notify me as promptly as may be convenient of any action that may be taken by your association

with respect to this report. If it is the desire of the constituent state associations and their component county societies to adopt the plan proposed, we wish to proceed with the necessary organization and to complete plans for the co-operation of the American Red Cross as soon as possible.

Very truly yours,
Olin West.
Secretary, American Medical Association

REPORT OF COMMITTEE ON MEDICAL RELIEF IN DISASTER

Adopted by the House of Delegates of the American Medical Association and referred to constituent State Medical Associations and their component County Medical Societies for consideration and action.

It has always been difficult to perfect a smooth-working and efficient organization for relief in times of great disaster when it has been attempted under the stress of the moment. In such times everybody wants to help, but, acting on impulse and under excitement, with appeals for aid coming from every quarter, and without any directing head, even those most anxious to render helpful service are prone to make mistakes that lead to harmful results and to produce complications that make it difficult to organize the machinery necessary for orderly and effective relief. This is true whether applied to efforts for medical relief or to those made for providing for other needs of the victims of disaster. When an organization established for the purpose is first on the ground, or is there soon enough to forestall any serious complications created by well-meaning but untrained volunteer workers, it is always easier to carry out necessary measures for relief in an efficient manner. That is why the House of Delegates approved the report of a Committee on Medical Relief in Disaster, submitted at the Dallas session. This report is submitted to constituent state associations and component county societies in the hope that, through them, organization will be effected within the American Medical Association that will insure adequate medical relief for the victims of disasters, wherever they may strike.

REPORT OF COMMITTEE

This is an outline of a plan for immediate medical relief, by the American Medical Association in cases of disaster.

The reason for suggesting this is the confusion and often breakdown that occurs immediately after any large disaster, before the established state and national organizations which properly take charge of such situations arrive on the scene. This immediate difficulty is due largely to the fact that, except in the large centers, there is apt to be no organization or individual with any authority for taking charge of these situations and directing the immediate work of medical relief. The suggestion of this plan has been made by medical officers of disaster relief of the American Red Cross with the hope that through it these immediate difficulties can be overcome and that co-operation with the Red Cross can be made more effective.

The purpose is to provide an organization that can immediately function in the case of disaster by reason of it having a medical man disignated in each county of the country who shall be deputized by the American Medical Association to act at once in organizing and directing immediate medical relief. He is to assume direction of medical relief until the properly constituted authorities or other recognized state or national organizations arrive and assume charge. It is not intended that this organization shall take permanent charge or that it shall take over the functions of the bodies provided by the state and federal governments, including the Red Cross. Its function is primarily to furnish immediate medical relief in the interval before the usual organizations arrive. After their arrival, this organization is expected to put itself under their direction or control or cease to function, except in the unlooked for situation where the organizations properly looked to so fail to meet their obligations that independent action is necessary to prevent suffering. It is to be hoped, and it is our expectation, that this organization will be able to co-operate both before and after their arrival with the state and federal organizations for relief, and with the Red Cross.

It is not its function to take charge of railroad disasters or of any other sort of industrial disasters where the corporation involved has its own organization to act immediately in these disasters. The function of this organization, in short, is not to take over medical relief in situations in which there is organized machinery to take care immediately of disasters already existing. Its purpose is to provide systematic direction for relief only in those situations in which, for the time being, no adequate organization exists for performing this function.

The plan particularly has in mind disasters of such magnitude that they temporarily break down the ordinary machinery of the community for medical relief and call for the sudden mobilization of the medical profession of the community in order to cope with unexpected situations. The necessity for this may arise in a city as well as in a small community.

The essential thing in such a plan is that there should exist potential machinery that can immediately be called on to act in the event of disaster. Disaster such as would call on this organization is fortunately so rare that any special organization that existed for this purpose alone would be very difficult to keep alive because of lack of demand for its services. It would seem, therefore, that the best plan would be to attach this function of disaster relief in each community to one of the regular officers of the constituent societys of the state medical associations. The officers on whom it would seem best to put this responsibility are the presidents of the local societies. They are representative men in their towns and counties, are chosen heads of the profession and, in the nature of things, have its confidence.

The plan, then, would be that the American Medical Association should direct that immediate supervision of medical relief, until taken over by the proper organizations, and should be a function of its officers as follows:

In counties: the president of the county medical society. Where more than one county is represented in a single medical society, the director of disaster relief should be the president of this society.

The state director of disaster relief should be the president of the state society.

The national representative of the American Medical Association for disaster relief, it would seem, should be some one who is in the headquarters of the American Medical Association and, who, therefore, could always be reached promptly. And it would seem that the proper officer to represent the Association as director of disaster relief should be the general manager or secretary of the Association, who should act, as far as possible, with the aid and advice of the President of the Association.

The function of the county or local director of disaster relief would be to assume charge—act as captain—in systematizing, directing and controlling activities in immediate medical relief. He should feel that he is responsible for the direction not only of the local members of the profession but also of volunteers who come in. The great difficulty in these situations is

that no one under present conditions feels that he can with propriety assume direction. Under this plan the president of the county medical society not only could with propriety assume direction but should be expected to do so by the members of the profession.

The president of the county or district society should be allowed, if he wishes, to deputize the direction of relief to another member of the profession of his choice. It he does this it should be done formally and publically, and this act should give his deputy full authority to act in his place.

The functions of the president of the state medical society as state director should be to see that the president of the county societies live up to their responsibilities, to co-operate with them in every way possible, and to act as a central officer through whom, in necessity, the national director of medical relief in disaster or any outside organization could take up matters, particularly matters that they desire to bring to the notice of the members of the profession as a whole.

The national director of medical disaster relief should have functions similar to those of the state directors for the country as a whole.

The Secretary or the General Manager of the Association as national director and the president of the state societies as state directors should be liaison officers between the national headquarters of the Association and the component county societies.

An immediate function of theirs, in case this plan is adopted, would be to see to it that the presidents of the local societies and the profession of the county become acquainted with this plan of organization, and in the event of disaster the president of the local society is to be looked to as the director in charge of medical relief until the proper authorities appear to take control.

This information should not only be given on the adoption of the plan, but should be repeated from time to time, until the plan becomes a tradition and in disaster the profession and the public come naturally to expect the president of the county medical society to take immediate charge and to expect the medical profession to act under his direction as long as the immediate necessity exists. To this end, information of this plan should be promulgated repeatedly through *The Journal of the Medical Association*, through the *American Medical Association Bulletin*, through the state medical journals and societies, and by such other means as may be effective.

William Allen Pusey. W. D. Haggard.
Wendell C. Phillips.

NURSING EDUCATION REPORT TO THE MICHIGAN STATE MEDICAL SOCIETY

In reporting to the Society on the subject of Nursing Education, the Committee at once recognizes the complexity of the matter under discussion. The selection of a happy medium between the too poorly prepared nurse and the nurse so well prepared that she defeats her own objective, is not an easy task. Nursing always has been, and by its own nature always must be subsidiary to the practice of medicine. It is therefore extremely urgent that the closest co-operation should exist between the medical and the nursing professions. Frank discussions of problems should be held, and both professions should be willing to make concessions if necessary for the well being of the patient.

In recent years more emphasis is being laid on the differentiation of the term "Trained" nurse and "Educated" unrse. By the expression "Trained" nurse is suggested a sufficient repetition of definite activities to insure their being done well, but more or less mechanically. She works only on the order of the physician and without much knowledge of cause or effect. This type of service from the nurse was sufficient in the earlier days of medical practice, when the physician spent much time with his patients, observing symptoms, tabulating reactions, clarifying situations—in short assuming all the burdens which the complete case of the patient demanded.

We must contrast this with the methods of the doctor of today, who usually spends but a short time with the patient and depends on the nurse for intelligent and concise observation during his absence. Drugs formerly prescribed in definie amounts, which could not be modified by the nurse, while now it is often expected that she administer dosage until effect. To do this, the nurse must exercise both knowledge and judgement to a far greater degree than formerly. A few years ago the subcutaneous administartion of salt solution was considered strictly a doctor's job, but now in many hospitals this task is turned over almost entirely to the nurses. The nurses' work now supplements that of the doctor in physiotheraphy, in certain gynecological treatments and many other specialized types of work. This increased demand on the part of the doctor requires more than training; it requires the *education* of the nurse. As the physician demands more and more of the nurse, her education must necessarily be extended. The proper amount of education of the nurse is therefore determined by the demand made upon her by the physician.

There seems to be a general agreement that we have now reached a time when there should probably be three types of nurses.

1. Bedside Nurses
2 Nurse's Aide
3. Nurses with post graduate training.

"Bedside Nurse" is the title some have given the regular graduate. There is much agreement that her course of hospital service with its attendant course of studies should be completed in less than three years, and can be reduced to twenty-eight or even twenty-four months. This can be accomplished by:

1. Demand of a high school diploma as an entrance requirement.
2. A more standardized course than is now in vogue.
3. Better prepared teachers.
4. Elimination of most or all "uneducational" work such as routine tasks profitable to the hospital but not to the nurse.
5. Reduce greatly the amount of theory and increase the practical work.
6. Better follow-up of class work with demonstrations on the floors by competent supervisors who shall carefully demonstrate work taught in the class room. Manikin work cannot replace work on a patient.

The reduction in time, however, has its possible drawbacks. It would mean a demand for one third more applications for admission to the training schools, most of which find considerable difficulty in filling their roster at the present time. It might also be argued that the number of graduate nurses would become greatly augmented, and possibly exceed the demand. According to the report of last year's Committee, however, this contingency is unlikely. It was clearly shown that in Michigan half or more of the graduates are removed from the ordinary care of patients, that is, "Bedside Nursing", by reason of employment in institutions, public health nursing activities and by matrimony. We could therefore well support many more graduates than are now available.

The removal of all "uneducational" work from the nurses' duties implies that the hospital must hire more help such as graduate nurses, teachers, clerks, maids, orderlies. This will increase hospital costs, and

may make it necessary for the hospital to remove all remuneration from nurses in training, or even to charge a tuition fee, as is customary in any other strictly "educational" institutions. This might in turn reduce the number of applications for admission.

One of the greatest problems of the patient of moderate means today is the cost of nursing service. Many physicians are hoping that with a shortened period of hospital training or education for the nurse this cost will be reduced. It is our opinion that this is a groundless hope. As far as the regular graduate is concerned, she will be even better educated under the shortened but improved course then she is now with a three years training. It is unlikely, therefore, that a less wage will be accepted by her.

The Committee believes that the only hope for reduction in nursing cost is through a third type of nurse designated by some as a "Nurse's Aid". This type of nurse, it is proposed, shall complete her course of training in from eight to twelve months and shall be sufficiently prepared in that time to care for milder cases and for convalescents.

At least two difficulties are encountered here. Most all regular nurse training schools have thus far refused to give such a course, stating that it could not be given in the same institution with the regular course. A second obstacle is a feeling on the part of the regularly graduated nurse that the lesser prepared nurse could probably not be prevented from doing any or all kinds of nursing and at rates which might equal those charged by the regular graduated nurse.

It has been shown that about half of the nurses now employed in the state of New York are untrained or practical nurses. This condition probably prevails to a similar degree in other states as well. A considerable number of these are doing good work in spite of having had little or no training. Therefore, we feel that the services of a nurse of this type could be greatly improved and made acceptable with even a short period of training under proper supervision. In general their charges would be more in keeping with the finances of people of moderate means. Since this type of nurse is already with us, uncontrolled and uneducated and must be reckoned with, why not train her, recognize her and thus keep her under better control. Canada has thus solved the problem of the partially prepared nurse.

Another way of reducing the cost of nursing, as we now see it, is to hospitalize the patient more and more, improving the ward or general care enough so that every sick patient can be carried through their illness. This could be accomplished by a slightly increased number of pupil nurses under an efficient floor supervisor. Our observation has been that this type of nursing has been even more satisfactory than that given by our graduates.

Group nursing is another plan to reduce the cost of nursing service. By this plan, aleady working out satisfactorily in some hospitals, one nurse specials two or three patients on a twelve hour duty and divides the cost between those attended.

The reference to proper floor nurses and teachers causes us to make the statement that there should be, we believe, post-graduate training for institutional positions. This, it would seem, should be given in the hospital by the regular staff and supplemented with much clinical opportunity along with class work. This, we feel, would produce a better nurse than if she were trained in an independent school given mostly to theory and class work and employed only a few hours of clinical observation which might be comparable to laboratory courses in other lines. We wish to emphasize the great need of nurses who can teach by *doing* rather than by word of mouth only.

In general, the Committee is of the opinion that the Lovett Report to the American Medical Association is probably the best solution for the problem of Nursing Education which has yet been offered, although several important details are yet incomplete and will require still further study.

We recommend that the Michigan State Medical Society endorse the Lovett Report, the essential points of which are given below:

I "The Committee is of the opinion that the primary requirement of the present situation is the formulation and adoption of a standard minimum curriculum for the training of the bedside nurse of private practice . . . . The curriculum should be such that it could be carried out by relatively small hospitals away from medical centers."

2 "That a committee for this important and responsible work be appointed, containing in its membership physicians who are competent clinical teachers, representative nurses and at least one educator neither a physician nor a nurse." This committee should be arranged for by the Michigan State Nurses Association, each having equal representation and appointing its own representatives. The educator should be selected by the other members of the committee when appointed.

3. "That after a proper time, training schools which do not conform to the scheme outlined by such a committee should be classed and published as schools not accepted by whatsoever body, committee and organization is made responsible for the matter."

4. "That the educational requirement for admission to the training school shall, as soon as possible, be made four years of high school."

5. "That the course for the bedside nurse of private practice be made two years and four months."

6. "That necessary changes in legislation be adopted to conform to the shortened course."

7. "That subsidiary nursing be favored and adopted and be subject to the same committee or organization recommended (in paragraphs two and three of the Lovett report), which should formulate for it a *standard minimum course* of the same simple character as the one prescribed for the Bedside Nurse."

8. "That post-graduate facilities be provided for the nurse who has graduated from the twenty-eight months course and who desires to qualify herself for special nursing or for teaching."

9. "That the nurses' training must be regarded as a serious educational problem requiring more of her time for educational work with some reduction in the waste of her time in non-educational ward routine."

10. "That better standards of teaching shall be required in the improved schools for both physicians and nurses."

11. That the last two mentioned items (nine and ten) will mean increased expenses to the hospitals maintaining training schools; but that in the end more serious results and greater expenses will accrue to these hospitals unless something is done to remedy the conditions now prevalent in our State.

C. E. Boys, Chairman.

STANDARD INSURANCE REPORTS

Your committee appointed to investigate the question of insurance blanks for the purpose of formulating a standard, simplified report blank for the reporting to insurance companies, begs leave to submit the following report:

When this duty was assigned to the committee it appeared at first glance to be a rather simple matter, but at the first step of the investigation your committee came to realize the magnitude of this duty and the almost unsurmountable difficulties which would be encountered. In our endeavor to benefit our own situation and to simplify this question of reporting on ex-

amination, progress and treatment of cases under our charge, we probably somewhat overlooked the attitude of the companies to whom the society desires to express its request, as well as the basic reasons and causes for this variation and conglomeration of medical reports.

The medical reports required by insurance companies are divided into a great many classifications but probably the largest number which we are required to submit are those on workmens compensation cases, health and accident cases and life insurance examinations. It is apparent from what is required by the insurance companies under these different classifications, that there will always have to be different forms of blanks on different types of insurance policies but this would not be so confusing to us if it were possible to have all companies use the same form for each classification.

For the investigations made by members of your committee, in their personal talks with insurance men and correspondence which they have carried on with some of the companies, it would seem that if all of the companies were doing business in Michigan alone that it might be possible to induce them to use one standard form of report for each classification of policies which they issue, but this is far from being the condition here in Michigan. Considering the workmens compensation field alone, there are but six local Michigan companies. There are forty-three companies operating in Michigan who have their home office in other states and there are five companies operating in Michigan whose home offices are abroad. Practically all of the forms used by these companies are either originally drafted by or have been revised by the claims executive or legal counsels at the home office of the Company. Each company attempts to standarize its form for its own use and probably the greater majority of these companies have considerable difficulty in getting the same form used in the region in which they operate. Your committee finds, however, that this is their aim and is generally accomplished, If we could obtain this result in Michigan, it would practically mean that the same result would be accomplished all over the country. Our investigation discloses that in the formulation of the blanks now in use by insurance companies, one executive or legal counsel feels the importance of one particular question and the manner in which it is drafted over that of other questions, while another company issuing the same policy may express through its claim man an entirely different attitude. We find that the insurance companies themselves in their conventions have attempted to standardize their forms but, even after serious study by committees appointed for the purpose, find that after years of work they have merely scratched the surface.

The committee further finds that requirements of the state laws in some states throughout the country interferes with our plan, but apparently there is nothing in Michigan except that the form we submit, if accepted and approved, would be different than the reports received by the company from other states.

We are submitting herewith forms which the society may present to the insurance companies to ascertain their reaction. It is the committee's opinion that the immediate response will undoubtedly be in the negative but, if persistently followed up, we believe that something can and will be worked out to at least simplify and if not entirely standardize medical reports. We feel that there should be really two sets of reports, one the original report giving something of the history of the case, the diagnosis and original treatment and then a much more simplified form on which could be reported only sufficient detail information to identify the case and then give the progress and prognosis.

Respectfully submitted,
Committee on Standardization of Insurance Report Blanks.
By Dr. Grover C. Penberthy, Chairman.
Dr. C. T. Southworth Dr. E. I. Carr
Dr. G. W. Stockwell Dr. T. F. Heavenrich

BLANK FORM FOR REPORTING WORKMEN'S COMPENSATION, CASES

1. Injury to Employe of .....
Employer's Name City
2. Name of Injured Employe.....Clock No. .....
3. Address. .....
City Street and No.
4. Occupation .....Dept. .....Age .....Married.....Sex.....
A. M.
4. Injured's statement of Accident: Date.....192....Hr.....
P. M.
Where it happened .....
Cause .....
.....
A.M.
6. Date of First Treatment.....192.....Hour.....P.M.
7. Where treated .....
8. At whose request .....
9. Diagnosis: Describe fully the precise nature and extent of the injury; also describe its exact appearance and its locality: USE DIAGRAM ON BACK OF THIS REPORT to illustrate extent and exact seat of injury. In case of dismemberment indicate exact joint of amputation. .....
.....
.....
10. What treatment was given? operation give exact location on diagram on back of this report:.....
11. Has injured a physical defect (eye, ear, hernia, varicose vein, venereal disease, etc?) If so, how serious and of how long standing? .....
12. Are any of the patient's symptoms traceable to any previous accident or bodily disease, and if so, what? .....
13. In your opinion was the injured intoxicated at the time of the accident? .....
14. IF STILL DISABLED, APPROXIMATE DATE INJURED WILL BE ABLE TO RETURN TO WORK? ..... 192 .....
15. IF UNABLE TO DO REGULAR WORK, COULD HE DO LIGHT WORK?.....
16. Will injured require further treatment? .....
Remarks: .....
.....
Date ..... 192..... Signed .....M. D.
Address .....

Size of blank form 8½"x11". Arrangement for carbon copy.

SURGEON'S SUBSEQUENT OR FINAL REPORT OF ACCIDENT

Employer's Name .....
Employe's Name .....
Date of Injury .....
Nature of Injury .....
Present condition .....
Estimate period of disibility
Partial .....
Total .....
Date of Discharge from treatment .....
Will there be any permanent or partial parmanent disability as a result of this accident? .....
Has any previous disease contributed to retarding recovery? .....
Any other information that would assist in a proper adjustment of this case .....
Remarks: .....
Date .....192.... Signed .....M. D.
Address .....

Size of blank 8½"x11". Arrangement for carbon copy.

VENEREAL PROPHYLAXIS.

Dear Doctor Warnshuis:—

I am in receipt of your letter asking me for a report of the Committee on Venereal Prophylaxis.

You will doubtlessly recall that some months ago when I was notified of my appointment to this Committee, I asked you to excuse me from accepting it.

In past years, I have given a good deal of time and thought to report of this Committee, these have always received the approval of the House of Delegates, and then have been pigeon-holed and forgotten.

I can see no useful purpose under existing conditions in repeating such efforts year after year, After having written you declining the position as Chairman of this Committee, I considered myself free from the position, and I therefore must request that you consider my decision as final and get your committee report from some other member.

Very sincerely yours,
U. J. Wile, M. D.

REPORT OF COMMITTEE ON MEDICAL EDUCATION

The proposition that the medical profession as a whole is and should be vitally interested in the conduct of medical education will be so generally admitted that the point need not be pressed. What is more difficult, though perhaps not more debatable, is the methods by which it may make that interest effective and helpful.

Progress, particularly in the more profoundly scientific aspect of medicine and in the fundamental sciences which underlie it, has been so rapid that it is out of the question for the busy practitioner to keep in touch with this progress and have a satisfactory opinion as to its probable effect on the practice of medicine. This tends to create a situation in which the practitioner hesitates to express an opinion and, while he is probably well advised to be cautious in regard to the scientific questions involved, this should not lead to his loosing touch with the net result or to his being in fact out of touch with the application of science to the teaching of clinical medicie and the developments of the curriculum which tend to alter the equipment of the recent graduate for his professional work.

Thinking over a considerable period of years, the outstanding change in the medical curriculum has been the increased requirement in fundamental science, going back, as it now does, even into the high school years, and on the whole the lessened proportion of the student's time which is devoted to contact with clinical problems. At a much earlier period, the apprentice system was the backbone of medical education. In this country, largely under the influence of the German School, that method of teaching has been almost completely abandoned and the laboratory method has been substituted. During the same period and under the same forces, as far as progress in science is concerned, the British School has succeeded in maintaining certain aspects of the apprentice system and in maintaining a more prolonged contact with clinical problems which still constitute a much larger proportion of the required work in medicine. There is much excellent opinion in this country at the present time which believes that we have gone too far in the use of the laboratory method to the detriment of the human contacts which are believed to be important in the training of physicians. The best evidence of the soundness of this view, if indeed it be sound, must come from the medical profession itself which is in a position to estimate critically and kindly the equipment of the recent graduate.

It is by no means easy for Medical Faculties to visulize the work which will be required of the practitioner during his early years after graduation and, in fact, the first study which has had to be undertaken by the recently organized Commission on Medical Education has been an attempt to find out what work the general practitioners of today are actually doing. There is considerable reason to believe that lack of this knowledge has unfavorably effected the development of the medical curriculm and that this deficiency might be considerably made up for by a closer contact between the organized medical profession and the faculties of medicine It is not impossible that there might be introduced into the medical course, without fundamentally disreputing its present balance, work which should tend to orient the student during his later years in his relation to the problems of medicine as he will have to meet them in practice. Sound experiments of this kind have been tried in various parts of the country, consisting either in the introduction into the teaching body during the later years of men actually engaged in the practice of medicine or the "farming out" of students to work with general practitioners while they are still in their under-graduate years. These and other experiments are, of course, purely tentative and it is no means certain that the same results cannot be obtained in many other ways. It would, for instance, be interesting to consider the effect of a larger utilization of the now unduly long summer vacation period. At this time students might be apprenticed to physicians beginning even in the earlier years of the medical course. This would probably be of some assistance to the physician and if physicians year after year should take these apprentices into their practice they would, before long, become a very important part of the teaching machinery of the school.

There are undoubtedly other ways in which contacts of this kind could be established and it is by no means certain that the Medical Faculties are likely to be the best judges of the ways in which such contacts could be developed.

Your Committee is not prepared to put forward specific recommendations nor does it believe that the time has come for final judgments, but certain propositions may be laid down with considerable certainty.

If it be true that the organized medical profession is interested and concerned to see that the teaching of medicine is made as effective as possible, then there should exist between the State Society and the Medical Faculties existing within the State some means of communication much more intimate than now exists.

If it be true that an earlier and more intimate contact with clinical problems would strengthen the medical curriculum as at present organized, then the methods by which such contacts can be increased is a proper subject for joint study between the Faculties of Medicine and the Medical Society of the State.

If it be true that the organized medical profession is prepared to take a sympathetic and constructive interest in the working out of the curriculm of the Medical Schools, then machinery should be set up which would enable such contact to be made effective.

Your Committee is of the opinion that there is here a field which will pay for further study: that the medical faculties will be found receptive to such a study and at all times open for the sympathetic consideration of well planned and constructive criticism. It is not suggested that the educational bodies responsible for educational results should transfer any of their responsibilities to the organized medical profession, but it is believed that a closer contact would lead to constructive suggestion which these educational bodies would receive cordially.

Following this line of thought, your Committee is inclined to suggest the creation of a well balanced standing committee representing the Michigan State Medical Society, the business of which it shall be to confer with the Faculties of Medicine and see what studies can be made and experiments tried which will tend to put at the disposal of the Faculties of Medicine the knowledge now held by the general practitioner.

W. H. MacCraken. Hugh Cabot.
Andrew P. Biddle, Chairman.

The Journal
OF THE
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SEPTEMBER, 1926

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

OUR INVITED GUESTS

At the combined section meetings on September 15th, the following invited guests will participate:

W. A. Evans, M. D., Chicago. Recognized authority in Public Health activities. Conducts a Health Column in Chicago Tribune.

C. C. Sturgis, M. D., Boston.

Harold Hays, M. D., New York City. Specialty Ear, Nose and Throat. Holds several important staff appointments in New York Hospitals and is a forceful writer.

U. V. Portmann, M. D., Cleveland. Roentgenologist at Cleveland Clinic. Extended experience in radio-therapy.

C. E. Hoover, M. D., Cleveland. Professor of Medicine, Western Reserve University. An internist of re-nown.

Irvin Able, M. D., Louisville, Ky. Professor of Surgery, Louisville University. A surgeon of national reputation and a most impressive speaker.

E. S. Judd, M. D., Mayo Clinic, needs no introduction for he has appeared on our programs a number of times and always imparts helpful observations from his extended surgical experience. His paper and the subsequent discussion is an outstanding feature of our program.

Alfred Strauss, M. D., Chicago. The subject of blood transfusion is an important one. From an extended experience in surgery Dr. Strauss is especially capable of presenting this subject in a manner that will stress the practical. Dr. Strauss is affiliated with the Michael Reese hospital.

Channing W. Barrette, M. D., Chicago. Those who heard Dr. Barrette at the Muskegon meeting will applaud his re-appearance on our program. Possessed of a large gynecological practice, gifted in speech and a well known clinical teacher we are assured of an able discussion of the assigned subject.

Dr. Levin of New York City, Dr. Rutherford of Indianapolis, Dr. MacKenzie of Philadelphia, will participate in the section programs and materially enhance their value.

We feel that our scientific program contains much that is of practical value and present day interest.

It was arranged with that object in view—to afford assistance and inspiration to every member. You cannot attend without personal benefit. You cannot afford to not attend. Lansing bids you welcome.

DELEGATES' OBLIGATION

We desire again to stress the point that a delegate has a direct obligation to the members of his County Society. That if he fails to attend all the sessions of the House of Delegates and participate in its deliberations he is disfranchising the members who elected him as a delegate. A delegate is therefore invested with a trust and an obligation. He can only discharge that trust and meet the obligation by attending all the sessions of the House of Delegates. We desire that each delegate will be mindful of this fact and acquit himself of the duty implied.

The policies and activities of our State Society are established and outlined by the House of Delegates. The work of the Council and officers is directed by the actions of the House. As a delegate you have a voice and a vote in determining what you desire to have your State Society achieve for your fellow members. You fail if you neglect to exercise that representative power.

Hence we urge that you seriously determine to be in attendance at the first and all the subsequent sessions of the House at Lansing on September 14th. The Sessions scheduled are: September 14th at 10:30 a. m., 2:30 p. m., 4:00 p. m. and 7:30 p. m.

PRESIDENT DARLING

The Journal is proud to add to our list of Presidents, the name of C. G. Darling. Doing so is accompanied with feeling of considerable regret for Dr. Darling has given much to our Society and has by his leadership, ripened ex-



Cyrenus G. Darling

perience and sound counsel, inspired a spirit of progressive activity. We have secured a stability under his leadership that was ever conducive to extended effort. His approval was always compensation for a task and carried with it satisfaction for the effort expended. Our Society may ever refer to his administration with pleasurable pride. As an ex-President we look forward to receiving his solicitous and sustained interest in the medical activities of our state. His retirement from office does not qualify him for a place on the emeritus or inactive rostra. We trust the years will be many ere he be so enrolled.

PATERNALISM

Three startling paragraphs stand out of the addresses delivered at the American Bar Association convention in Denver. These paragraphs are from the report of the Committee on Citizenship which aimed to prove that the American citizen "demands government interference in everything and surrenders freedom and his individuality in return for it":

The American citizen is being pauperized by government alms.

If he supports the government he asks the government in return to support him. If prices are too high, instead of doing without, he wants the goverment to lower them; if they are too low, he wants the government to raise them.

He wants the government to build his roads, educate his offspring, sanitate him, physic him, bring his children into the world, prescribe his dietary and tell him what to believe in matters of conscience.

We are elated to perceive the trickling through of a crystalizing sentiment resenting such paternalism. The profession has recorded its objections. Medical editors have pointed out the rocks that threatened destruction.

Still, there are those who persist in their endeavor to create and continue these bureaucratic measures. The Sheppard-Towner measure, the Children's Bureau, the Bureau on Education and one or two others are the outstanding examples. The Maternity Bureau, in its endeavor to secure continuance, has by its reports evidenced the failure of its functioning and revealed that its main achievements have been to create jobs, spend money, make surveys, etc., which have not placed a single iota of safety or care at the bedside of the pregnant woman or the new-born babe. We cry out again—"Enough of such sham."

We are also heartily sick of the claims of these uplifters, in that they alone are responsible for the reduction of mortality. In uttering such claims they ignore other and more important factors. The end results record that bureaus, welfare workers and similar kin, play a role that equals about one-half of one per cent of the total factors responsible for reduced morbidity, mortality and increased longevity. However, they would have us think that 99 per cent is the result of their theoretical and nebulistic labor. Rot! As facts become available the public will awaken. Already the ascendency of bureaus has ceased, and a precipitate downward curve will speedily represent their vanishing. They will resist, of course, for the workers will be loathe to forego their salaries. We must continue to point out their uselessness and fallacies. We must be represented at their hearings. To that end our profession must continue to expose their work.

HOW TO READ

Every week we receive letters of inquiry about one thing or another, and we are glad to get them. Still, the quest for information would not have been necessary if one but read The Journal. As a splendid suggestion we are imparting a communication from one of our members. Dr. Felch has certainly solved a working plan of "How to Read His Journals":

Ishpeming, Mich., July 31 1926

Editor:—

When you were in Marquette at the Conference of the Marquett-Alger County Medical Society, I was impressed with the efforts you were making to further the influence of the State Medical Journal. In my

short talk at the dinner I meant to have told you of a scheme of my own to make the reading of the Journal sure, speedy and instructive. Only a short time ago some writer gave out the identical method and said it was the true way to read a magazine. Briefly it is this.

When the Journal comes I lay it face up on an open space on my desk. Nobody is allowed to put any book, paper or other article over it. It is in plain view all of the time. When I am in the mood to read it I look at the table of contents, noting the titles and the names of the authors. Some of the subject matter may be just what I wanted to know about at that particular time; some of the authors may be known to me personally or by reputation or position

Then I turn to the very last page and glance at the ads, read the book review, the reports from the different County Societies, the personals, the correspondence, the comments and the editorials. One advantage of this is that when one reads the editorial last he is in a position to understand all references which the editorial may make concerining persons or things of which you have just real. Then I lay down the Journal face up in its own reserved place on the desk. In a day or so I take it up again and read the articles which most interest me. Then at my convenience I finish the reading.

With the Journal A. M. A. I have a slightly different plan. I turn first to the column "Deaths." I have several reasons for that besiles mere curiosity. One is that in case the name of an intimate or well known friend appears it prompts me to write a letter of condolence. Then I turn to "Tonics and Sedatives" and enjoy them. Then I take them into D. Barnett's office and the amusement is greater. Later he appears at the County Medical Society meeting and delivers them, in his own inimitable manner, red hot from the printed page and gets a roar.

With newspapers the plan is somewhat different again. The front page, especially the telegraphic news is read at once. Then turn to the last page merely glance at the local and the crimes and the baseballs, believing it a pernicious habit to burden the memory with such bunk, but reading the editorials and interesting articles.

Possibly, all this is old stuff to you. But in your search to find means to increase the efficiency of the Journal it might be that you would find something in the tale of these innocent personal pecularities which would be helpful in your work.

Hoping to have the pleasure of seeing you again soon.

T. A. Felch.

CANCER

When Dr. Francis Carter Wood was here in January, speaking before a luncheon group in the interests of cancer week, he expressed the hope that some sort of a permanent cancer clinic would grow out of the activities of the week.

"There is need for more centralization and grouping of cancer cases," he said. France, where very little money is available for philanthropy, is developing cancer centers through government subsidy. I feel sure that in another generation cancer will be treated in centers, but this is an ideal.

"Detroit is an actively growing, prosperous city. Personally, I would like to see some attempt at this sort of thing here. You have 900 cancer deaths per year in Detroit. There is no reason why many of these should not be grouped today. Only in that way will sufficient experience, exact knowledge of individual differences and susceptibilities develope, and the best facilities be at the disposal of the cancer patient."

Announcement is made in this issue of the establishment of a cancer clinic at Harper Hospital. It was requested by the board of trustees of Harper Hospital following Dr. Wood's talk. "The clinic is especially interested in early and border line cases of malignancy," says the announcement. This is the zone where diagnosis is the major problem, treatment often the less difficult one. It is the field aimed at during the cancer week activities, and is held by all authorities to be the most fruitful path for progress in cancer.

We understand that the chief aim of the clinic will be the study and evaluation of methods of treatment, and the clinical and pathological study of early lesions, principally through well kept records of many cases seen under complete investigation. The clinic is the outgrowth of the very successful cancer week campaigns in Detroit. As such, it will appreciate the value of publicity ,and will use publicity as one of the therapeutic aids in the treatment of the disease.

We feel that such an undertaking is deserving of the fullest support of the entire membership of the Wayne County Medical Society, and we do not doubt that it will receive this support, just as the cancer week campaigns have in the past two to three years evoked the fullest measure and the finest kind of co-operation among the entire local medical fraternity.—H. C. Saltztein.

THE KOCH CANCER FOUNDATION—A WARNING

Every member of the Massachusetts Medical Society has now received, presumably, three numbers of the Bulletin of the Koch Cancer Foundation, the house organ of what is apparently a commercial organization. This bulletin, it is claimed, goes to every physician in the United States and Canada. In appearance and style it resembles a bona fide medical journal although the list of contributors seems to be largely a matter of repetition from month to month. The Bulletin, in technical language, upholds the theory that all accepted methods of cancer therapy are antiquated and should be obsolete, and that they should be entirely replaced by the Koch synthetic cancer antitoxin, which is not merely a palliative but an actual cure for cancer. The Bulletin also regularly finds occasion for slurring remarks concerning the American Medical Association and the

American Society for the Control of Cancer.

The arguments of the proponents of Koch's cancer antitoxin are extremely convincing and may well mislead many readers of this bulletin into accepting them at their face value, were it not for certain facts that have been set forth in the Journal of the American Medical Association (May 8, 1926).

First and foremost is the fact that, although "Koch's Synthetic Anti-toxin" is purported to have developed in 1919, its composition still remains a secret—certainly a suspicious circumstance as viewed in the light of ethical, scientific medicine. Koch's "cure" has, more-over, been investigated by three different committees appointed by the Wayne County Medical Society, and each report has been unfavorable, the last closing with the statement:

"In no instance have we found a case where the diagnosis of cancer was absolutely established and where no other form of treatment has been used in which a cure or any decided benefit had ever been obtained."

The Journal of the A. M. A. has also collected data on its own account concerning individuals who had been treated with this antitoxin, and these reports are unanimously condemnatory.

Who is Dr. Koch? We may learn from the Journal of the American Medical Association that William F. Koch was graduated in medicine by the Detroit College of Medicine and Surgery in 1918, having previously been an assistant in physiology and an instructor in history in the University of Michigan Medical School. He also had been professor of physiology in the Detroit College of Medicine and Surgery.

A man, however, is known by the company he keeps, and the individuals who organized the "Koch Cancer Foundation" in February, 1926, are the following.

Frederick Dugdale, M. D., of Boston, a graduate of the Baltimore Medical College, a disciple of Abrams, previously advertising himself as a "Specialist in Rheumatism, Cancer, Chronic Blood and Nervous Diseases;"

A. W. Hoyt, M. D., of New York, a graduate of the Medical Department of the University of the City of New York, and a former disciple of Abrams. Recently he has also been interested in the "Auto-Hemic Serum" of L. D. Rogers;

W. Wallace Fritz, M. D., of Philadelphia, a graduate of the Medico-Chirurgical College of Philadelphia, who occasionally places after his name the letters M.D., D.D.S., N.D., D.O., D.C., indicating that he is a physician, a dentist, a naprapath, an osteopath and a chiropractor. He has been "dean" of the "American College of Neuropathy" and president of the "National Association of Drugless Physicians;"

L. L. Dill, M. D., of Logansport, Indiana, a graduate of the University of Michigan Homeopathic Medical School, director of the "Logansport Cancer Institute;"

C. Everett Field, M. D., of New York, a graduate of the Medical Department of the University of the City of New York, one-time director of the "Radium Institute of New York;"

Elnora C. Folkman, M. D., of New York, a graduate of the George Washington University Medical School, a member of the "Society of Physical Therapeutists," and a lessee of one of Abrams' "Oscilloclasts;"

Albert Lynch, M. D., of Fairbury, Nebraska, a graduate of the University of Michigan Medical School, early connected with the exploitation of the Koch "cure."

The price of the treatment from the Foundation is said to be $110 to both stockholders and members, who are obliged to charge their patients $300 for the first, and $200 for any subsequent treatments. The difference, according to the A. M. A. Journal, is presumably to cover the risk assumed by the followers of Koch in injecting a secret mixture into the cancer patient.

We do not know whether or not Dr. Koch is a misguided enthusiast who has deluded himself into believing that he has discovered a cure for cancer. Certainly the type of associates he has gathered about him speak against his honesty of purpose, and in any event his methods and those of his associates must debar any ethical physicians from having dealings with them.

The above editorial is reprinted from the Boston Medical and Surgical Journal. If there are any Michigan doctors administering this form of alleged medication we want to know who they are. If any member has been misguided he now is without excuse for continuing to abet this commercialized scheme, and to delude cancer victims by holding out what is apparently a valueless method.

Editorial Comments

The combustion of millions of gallons of asoline each ear is providing facilities and comfort undreamed of a few decades ago. tI has often been remarked that each form of progress is carried out to the detriment of some one. The cost of changes that benefit the many not infrequently involves the comfort of a few. Manifold advantages sometimes promote minor ills. This seems to apply to the gasoline engine, which

has revolutionized motor traffic throughout the world. Only a few years ago, chronic intoxication with carbon monoxide was a medical rarity, usually chargeable to leaky gas pipes that allowed the escape of contaminating "water gas." Today, carbon monoxide is recognized as a menace of automobile exhaust gases. The annual records of details through careless exposure in badly ventilated garages have begun to arouse attention; at any rate, the danger is understood even if it may too often still be disregarded. When, in 1923, Henderson and Haggard of Yale University included city streets in the list of possible harmful localities with respect to the presence of the deadly gas, there was some hesitation in believing that the "free air" outdoors could ever become really dangerous to health. Observations recently reported from Philadelphia actually support the existence of a definite st t risk of repeated or chronic slight carbon monoxide anoxemia in congested mercantile districts of our large cities. At any rate, it is demonstrated that patrolmen who supervise heavy traffic movement may manifest symptoms of malaise at the end of a busy day's work; and the offensive exhaust gas has been incriminated by demonstration of a saturation of the hemoglobin of the blood to a maximum value in some instances of 30 per cent. Relief is not difficult when once the cause of harm is known.

Brady's Health Talks are known far and wide. The doctor has long established a reputation for keen humor, tart replies intermingled with sound, wholesome medicial advice. He has gone far and done much toward educating the public. By hard, direct, sure fire shots he is disabusing peoples minds of the follies, foibles and rot pertaining to medicine, disease and health. Granny theories and tales are given solar blows at all times. We've read his writings and are ever impressed with his abreastness to medical facts. We've yet to note a "slip-up" or, bias or, shooting off on a tangent. He is consistent and basicaly sound in all that he says. For this he is deserving of much credit, for he is serving the public while also aiding his profcssional brothers. His is a contribution of merit and inestimable value. If he has the time we would appreciate that he might conduct a column in our medical journals and exercise a similar influence upon the profession within itself. Goodness knows that there are many who might benefit. If we thought he'd accept the invitation we'd invite him to our state meeting.

Fame and individual idolatry result from strange circumstances. A screen actor of questioned integrity and a savory reputation gains prominence by reason of having played the lead in several roles, is taken ill. Presto, front page newspaper publicity, Doctors bulletins, and a playing up of the happenings that occured in what was finaly the death chamber, and now, with an ended career what enduring contribution did he ever make to country, state, life or human well-being and betterment? A few pictures that may have answered for the moment but entirely void of inspiration and a daily life that was far from exemplary—that's 'bout all. And yet our press gave recognition seldom attained but by a few. We could cite a hundred or more individuals who contributed vastly more meritous achievements for our prosperity and happiness—they died the same week but went to their bourne unpraised, unsung. Muse and moralize and then please send us the answer—we are unable to solve the riddle.

In 1900, our State Society in conjunction with the Upper Penninsula Medical Socicty, erected a granit monument on Mackinac Island, to commemorate the scientific experiments of Dr. Beaumont on Alexis St. Martin. The monument stands within the walls of the old government fort.

It is a splendid, enduring monument overlooking the Straits and is visited by hundreds of visitors, who daily inspect this historic fort. We had never personally seen the fort or monument until this past month, when on a visit to the island we went to the fort for the purpose of inspecting this monument. We were grievously surprised. After some thirty minutes of deciphering we were able to copy the inscription. The elements of twenty-six years have rendered the inscription un-legible.

The recomendation is now being made to the Council to authorize the securing of a bronze tablet to be placed on this monument in order that the purpose for which it was erected may be restored.

If there is any one person that we have the uttermost contempt for, it is that man, holding a doctor's degree, who for his price produces abortions. He is not only a disgrace to his profession but also to society in general. Every county society should undertake to cause these abortionists to be prosecuted, and driven out. If a man can't make ends meet by the legitimate practice of medicine he had better close shop and seek other means for a livelihood. The money he obtains for producing abortions is far more tainted than that of the bootlegger, thief or swindler. The Journal urges a state wide campaign to drive out of the state this depraved, degraded social leech. Who dares to start?

The old elephant in the circus can do wonders in pulling or pushing a load. Recently, however, in a test, six horses were too much for him. Hitched up together they outpulled the elephant. It illustrated the old story of team work. The elephant was alone; the six horses—hitched together. You may be a big guy—but team work on the part of two or three other guys may show you up and lay you out. So to, team work, the hitching up of all you doctors in your county can and will beget for you what you desire—but you've ALL got to pull, you can't hang back and leave the pulling to be done by a few. Think it over and decide whether you are going to start pulling or just be a "hang-backer."

In this issue will be found the reports of the majority of our standing committees. These reports will be rendered to the House of Delegates at the Lansing meeting. Just now we want delegates and members to read them. Familiarity with their contents favors intelligent discussion that may be proffered when they are considered by the House of Delegates. There can then be no complaint that time was not available for study of these reports.

On the whole, hospital records are very deficient. The attempt at record keeping is very inadequate and most of these records are very farcial. We urge that hospital anthorities secure the fourth series of methods and problems of medical education issued by the Division of Medical Education of the Rockefeller Foundation. Valuable information that is very practical is imparted in this publication which will be sent gratis.

Were it not for our advertisers we would be com-

pelled to retrench on our Journal. Consequently it is imperatively incumbent upon our members to patronize our advertisers and to give them preference when making purchases or placing orders. We urge again and again that our members adopt this policy. Read our advertising pages, answer these ads, and favor them with your orders.

"Oh Hum! and the fish are biting!" such was the editor's exclamation in the August issue of the Indiana State Journal. Well, here's September and we are moved to exclaim "Hot Ziggity Zam, Let's Go." Vacations are over—the state meeting is at hand—we've got lots of pep and our drives are still traveling 250 yards down the fairway—so let's go and whoop along.

Dr. Fishbein, editor of the Journal of the A. M. A., had an interesting article in the August Century. He set forth in clear terms what the A. M. A. really was and the service it renders to the public. Such articles are of extreme value and enlighten the laymen thereby refuting the charges that our national organization is a medical trust.

Your own business is possible only by the prosperity of all. It is not a compliment to you to withdraw unto yourself and remain aloof from your conferers. It is only as you join, mingle and work with them that you succeed. The opportunity is afforded in your county and state meetings.

The political pot is surely boiling. We take no issue or sides. We do urge that you vote and vote for dependable men as senators and representatives who reflect ability to reason and judge between graft and merit.

Yes, Lansing, has a good golf course or two. Play, surely you may. But—don't let your foresome cause you to miss your sessions.

Please note our new address— Suite 1508 Grand Rapids National Bank Building.

Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

Editor of The Journal:

The enclosed reprint of a study made of 1,000 heart cases, most of whom attended the Bellevue Cardiac Clinic for Adults, will recommend itself to your attention both for what it reveals and for what it emphasizes as needing yet to be studied.

The authors carefully guard against their conclusions on 1,000 cases being taken for granted as true of 10,000 or 100,000. While pointing out the necessity of further detailed study if we are to proceed with intelligence in preventing heart diseases, they present these interesting conclusions (see pages 28 and 29 of enclosed pamphlet):

The mortality from heart disease was about equal for the sexes in the higher age groups.

Rheumatic heart disease seemed to be as common among males as among females. But in syphiltic heart disease the ratio of males to females was about seven or eight to one, and arteriosclerotic heart disease appeared to be much more common among males than females. The reason for this discrepancy between the sexes was inexplicable.

In about three-fourths of the cases of rheumatic heart disease, rheumatic fever, either alone or in combinaton with other infections, was an etiological factor; tonsillitis in one-fourth of the cases; chorea in a little more than one-tenth of the cases, and "growing" or joint pains in about one-twentieth of the cases. With the exception of chorea, which occurred twice as often among females as males, the relative frequencies of these infections was about equal for the sexes.

Rheumatic heart disease was rare 50 years of age; from 90 to 95 per cent of the cases of rheumatic heart disease occurred before the age of 50 years, more than half of which occurred before the age of 30. About 50 per cent of the syphilitic cases occurred before the age of 50, and 50 per ecnt after this age; the disease appeared to be rare before the age of 40 and after the age of 60. From 80 to 95 per cent of the cases of arteriosclerotic heart disease occurred after 50 years of age. Two-thirds of the cases of unknown etiology presented lesions typical of rheumatic heart disease, and occurred before the age of 50.

The available mortality statistics for organic heart disease are inadequate in any attempt to study the age incidence and duration of the disease, because they are based on deaths recorded in accordance with the International List of Causes of Death, which is not so classified as to make it possible to distinguish between the infectious and degenerative varieties of the disease.

We shall be glad at any time to help in the presentation of this or any other material for your publication, if you will call on us.

Sincerely yours,
Harry L. Hopkins, Director.

LOUISIANA PROTESTS LAY HEALTH OFFICIALS

Editor of The Journal:

Enclosed herewith you will find resolutions as offered by our Committee on Medical Education at our Annual Meeting, Monroe, April 17th, 1926, and adopted by our House of Delegates.

We would appreciate your acquainting your County Medical Societies in regard to these resolutions.

Yours very truly,
P. T. Talbot, Secretary-Treasurer.

Whereas, The American Public Health Association at its Annual Meeting in St. Louis, in October, 1925, listened to an address by one of its members, favoring a new doctor in each community where a Health Officer is needed, to be known as a Doctor of Public Health, and

Whereas, Several institutions of learning have introduced courses in Public Health whereby a layman as well as a physician, may be instructed and in a comparatively short time qualify as a Doctor of Public Health, (D. P. H.) and be allowed to advise, qualify and practice preventive medicine, and

Whereas, The Louisiana Sate Medical Society believes that all Health Officials should first be physicians, (M. D.), who have the proper knowledge of the sciences concerned in Public Health, and that such

knowledge cannot be gained by any layman in two or three years, and

Whereas, Such an arrangement of a layman being a Health Official, places a double expense on the community, since it is necessary for the community to then procure the service of an M. D. in addition to a layman, and

Whereas, The State confers on an M. D. the right to practice medicine and surgery in all of its branches, while the special licensing of a D. P. H. would be special legislation tending to take from an M .D. that right,

Therefore Be It Resolved, That the Louisiana State Medical Society believes all positions of trust pertaining to Public Health in any community should be held by physicians, (M. D.) and not by laymen holding D. P. H. licenses, and

Be It Further Resolved, That the Louisiana State Medical Society views with displeasure any move on the part of the American Public Health Association, which may express a desire to replace physicians as Health Officials by laymen with D. P. H. licenses, and

Be It Further Resolved, That a copy of this resolution be sent to the American Public Health Association; to all those institutions of learning where courses in Public Health are given with a view to conferring a D. P. H. Degree; to all Medical Colleges; to all State Boards of Health; and to every State Medical Society with a request that their component County Societies be made acquainted with the proposed activities of a Public Health Association, whose president is a layman.

State News Notes

The American Pharmaceutical Manufacturers' Association at its annual July meeting at Lake Placid, New York, did itself the honor to elect Ralph R. Patch, president. Mr. Patch is the president and general manager of the E. L. Patch Co., of Boston, Mass., the well-known manufacturers of Patch's Flavored Cod Liver Oil.

The American Pharmaceutical Manufacturers' Association comprises the large manufacturers of preparations so extensively used by the medical profession; and physicians are therefore interested in the personality of its officers. Mr. Patch has served the Association for several years as its Secretary-Treasurer, and his election as president came as a fitting reward for his years of service in behalf of that organization.

Our Society Business and Activities

HARVEY GEORGE SMITH

EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

TAKE THE STATE MEETING TO THE MEMBERSHIP

From every County Medical Society, a number of members will attend the State Medical Meeting at Lansing. The total number should exceed eight hundred. The delegates, duly elected representatives, will attend the meetings of the House of Delegates to studiously take part in the plans and discussions for the advancement of the work of the State Society and the Science of Medicine. Some counties will be represented by one member and several by two or more. The majority will have only one representative. In addition to the business meetings of the State Medical Society, there are the Scientific and General Sessions, seven section meetings and an entire day of general scientific sessions.

How can one or two delegates attend all the business sessions and be present at the seven section meetings which meet at the same time? Then there are the seven half hour addresses at the General Sessions. The original purpose of the Elected Delegate was no doubt that he should attend all the business and scientific sessions and report back to his own County Medical Society at a regular or special meeting for his own membership. With the present size of the Society, the broad field of business and science that must be covered, can this be possible? The answer is evident.

The State Meeting is one not only to which all members should *come* but one which should *go* to all members. This can only be done through organization. The "come" part of the State Meeting has been arranged. A corps of excellent speakers has been secured, hotels have been reserved and auditoriums to meet every demand of sections and speakers. What more? Every Society through its officers should canvass the membership, determine who is going to the State Meeting and then appoint in addition to the delegates sufficient members to have representation at each section. Each delegate and appointed member should act as official reporter for his own County Medical Society. Each Society should be represented by at least seven members if all sections are to be reported. These appointed members may now act as a committee, meet at some appointed time on return home and so plan their reports that a most excellent Scientific program may be presented to the members of their own County Medical Society. All members cannot go. Some must

remain behind to care for the seriously ill and emergency cases. But those who remain at home should not be denied a definite contact with the State Meeting. Those who may act in the capacity of reporter will be the agents who carry the State Meeting back to their own membership, their own fellows, to the three thousand members throughout the state. To do so will make the State Meeting a vital factor. Officers of County Medical Societies are urged to set up their organization now in order that their own members may have opportunity to serve their fellows and their State Society for the advancement of Scientific Medicine. Take the State Meeting back to every County Medical Society and to every member.

COMPARISONS

One hundred doctors of the Northern Peninsula attended the four Post-Graduate Conferences conducted by the State Medical Society on July 27, 28, 29 and 30th. One hundred doctors of the same Northern Peninsula did not attend.

Four speakers gave a week of their time for the State Society and their fellow practitioners. Their travel expense alone involved a total of five hundred dollars. For each physician to interview the speakers personally in their respective resident cities would require at least a week and the same expense as that incurred by each speaker. Thus a ten dollar membership, in this one activity alone, is equal to $125 of actual cash. One hundred physicians attending the conferences paid $1,000 in dues and saved themselves $12,500. The other hundred might have had the same benefit. But some one says, this is only "paper." Quite true. The one hundred who attended would not have taken a week off and spent their hard earned one hundred twenty-five dollars, neither would they have been the advancers of Scientific Medicine that they now are—a reason for conducting the Post Graduate Conferences.

The sad comment and deduction is, that the other one hundred did not take advantage of their opportunities. One hundred agreed to advance, one hundred by their absence have decreed to retard. One hundred said they had attended one of the best medical meetings in their lives. One hundred were not heard.

The following letter evidences the satisfaction of those who attended:—

Mr. Harvey George Smith,

Dear Sir:—

I am writing you relative to the post graduate conference held in Ironwood on Friday, July 30th in the Memorial Building. Information at hand is to the effect that this meeting excelled the meeting held last year. It is the concensus of opinion of the members of this society that it was one of the best meetings that they ever attended and hope that this meeting can be held again next year at a little later date, probably the later part of September.

The separate speakers handled their subjects exceptionally well and we feel that you are to be congratulated on putting on such a conference.

Yours very truly,
Merlin H. Draper M. D.

INGHAM COUNTY STEPS OUT

"This is a fine time you're having, Mr. President. Everybody is doing something, all are enjoying themselves. The way those baseball nines played you'd think they were old college rivals. The old timers, who used to pitch quoits so that a slide rule was necessary to determine who won, have been up to their old tricks. The golfers tried every device of the game to take the color off of the little 'white pill.' And now your doctor 'chefs' look like professionals at the other fellow's bread earning profession." The President very modestly replied, "Everybody works and I have nothing to do. This whole picnic has been in charge of committees, there were committees for every activity and even the ladies were included. Everybody had a job, every committee met and made definite plans for this affair so that we knew just who was responsible for each event, for the preparation of the picnic dinner even to the broiling of the steak and cutting of the water mellons. You know on occasions like this we address each other by our first names. At one of our regular meetings, I said, the first man who says doctor around here this evening will be fined ten cents. I fell victim to my own rule, we collected a few more dimes and from then on we have been a bunch of good fellows. 'Our ice has all melted,' whether it be summer or winter or whether some one may have a 'Frigidaire' outfit in his home. Our hammers have all been locked up and we are going fine."

Friendship, good fellows, good organization and responsibility are the back bone of such an organization. They make a Society morale, a Society spirit, a Society to be proud of when away from home as well as at home. They make a Society that can do anything it undertakes to do. Scientific Medicine need have no fears about its future in Ingham County. There are other Societies that have this same spirit but not all those that make up the State Society. "Fall in," Societies, "March!"

BEGINNINGS

September and October are the beginning months of the year's activity of County Medical Societies. Hot weather and vacations have had their "innings." The old adage, "Well begun is half done," applies to the County Medical Society activity as well as to any activity of individual or organization. To have a good beginning means that County Society Officers and

Committeemen must begin work now. No beginning has much value if made a few days or hours before the first meeting. Such beginnings usually mean failure for the meeting and for all other meetings throughout the year. The consequent result is a Society that does little for its membership and for its community. Such Societies have no morale, little friendship and fellowship. They are not known to the membership or the people. "They are not served nor do they serve." History records the fact that all progress in civilization has been made through group activity. The early ancestors of our race soon learned that if they were to survive, they must work together and not as individuals. Wherever anthropologists have found man's remains, they have always found the indicators that man lived in groups, whether roaming over plains for food or nestled in caves for protection. County Medical Societies represent a group of specialists. They must live as a group in their science, they must work together and advance together, or they perish.

No better beginning can be made for the year than that of "tuning in" with the State Meeting on September 14, 15, 16. Officers should see to it that their Societies are represented at the Annual Sessions by groups of five, ten, fifteen, or the majority of each society. Properly developed plans will bring representation in groups from every section of the state. From the State Meeting plan the first County Medical Society meeting. Make it a big affair—begin with a dinner or luncheon, have a snappy speaker and the representatives who have been the reporters at the State meeting make up the program. Set aside one hour for the Scientific sections and another hour for visiting and comparing notes of the summer. Let imagination and group spirit loose and the first program of every County Medical Society in Michigan will be a real beginning. Help historic progress proceed.

County Society News

NEWAYGO COUNTY

Regular meeting of the Newaygo County Medical Society was held at the St. Byno hotel on Fremont lake. The Oceana County Society also being in attendance.

A delicious chicken dinner was served by the hostess Mrs Mullin.

The minutes of the previous meeting were read and approved.

Members present were Dr. Day, Sec. of Oceana Co. Society of Hart and Drs. Griffin, Buskirk and Hayden of Shelby and Ladies.

Drs. Waters, DeHaas, J. C. Branch, W. Geerling, Dr. Black of Holton, L. Geerling and the Secretary and Dr. Moore of Newaygo and Ladies.

Dr. N. DeHaas then gave a very comprehensive paper on Goitre. Discussion by Dr. Buskirk and Day.

Dr. L. Geerling rendered a paper on diseased Gall bladder which was discussed by Dr. Hayden and Black.

Meeting then adjourned. W. H. Barnum, Sec.

EATON COUNTY

The Annual Picnic and meeting of the Eaton County Medical Society was held at Pine Lake, Olivet, Thursday afternoon, Aug. 5. A total of 38 persons enjoyed the picnic dinner.

Following the dinner the Clinical Program was opened by Rev. Smith of Olivet who spoke on "The Thought of Tomorrow". Second on the program was Dr. C. E. Boys who gave a very comprehensive talk on "Prostate Gland". This was discussed in a helpful manner by Dr. Martin of Battle Creek. The third speaker was Dr. B. A. Shepherd of Kalamazoo who spoke on "The Rational Basis for Treatment in Pulmonary Tuberculosis". These talks were both enjoyable and instructive.

Harvey Smith executive Secretary was present and spoke to the society on County Activities and urged all present to attend the state meeting to be held in Lansing.

Moved, seconded and carried that the Sept. meeting be held in conjunction with the State meeting.

Very truly yours,
H. J. PRALL.

HOUGHTON COUNTY

The Houghton County Medical Society held its regular monthly medical meeting in conjunction with the post-graduate conference of the Michigan State Medical Society, at the Douglass House, Houghton, Thursday, July 29th. Twenty-five doctors attended the conference, and the luncheon at noon was held in conjunction with the regular weekly meeting of the Houghton Rotary Club.

Mr. Harvey George Smith spoke on the lines of the aim of the medical conference, and Dr William H. Marshall of Flint gave a very interesting talk on medicine, past, present and future.

The following program was carried out:

10:00—Opening Statements
Richard Burke, M. D. Councilor-Chairman
Harvey George Smith, Executive Secretary.
10:30—Diagnosis of Chest Conditions
William H. Marshall, M. D., Flint.
11:00—Essentials in Neurological Examination
John L. Garvey, M. D., Ann Arbor
11:30—Pre-Natal Care
Roland S. Cron, M. D., Milwaukee.
12:00—Luncheon
2:00—Fractures of the Skull
Max Minor Peet, M. D., Ann Arbor.
3:00—Diagnosis and Treatment of Cardiac Pain
William H. Marshall, M. D., Flint.
3:30—Sequels of Epidemic Encephalitis
John L. Garvey, M. D., Ann Arbor
4:00—Recess
4:10—Diagnosis and Treatment of Diseases of the Cervix
Roland S. Corn, M. D., Milwaukee.
4:40—Acute Abdominal Diseases.
Max Minor Peet, M. D., Ann Arbor.

The papers and talks were well received and certainly showed a thorough knowledge of the subject taken up.

The Houghton County Medical Society considers itself very fortunate in having this conference held here, and wishes to take this means of thanking all the doctors for the very fine, instructive meeting. We sincerely hope and look forward to a conference next year. Yours very truly,
G. C. Stuard, M. D. Secretary.

(Turn to Ad Section, Page XXXV for Books)

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Vol. XXV. GRAND RAPIDS, MICH., OCTOBER, 1926 No. 10

Original Articles

PRESIDENT'S ANNUAL ADDRESS. MEDICAL PROBLEMS AND PROGRESS*

C. G. DARLING, M. D., F. A. C. S.
ANN ARBOR, MICH.

What medicine has accomplished in the last decade is usually measured by one idea —the lengthening of human life, but that is only a part of the story. To quote from a non-medical writer: "We (the public) think of the discoverers in medical science as relieving man's body from disease. The addition of some six years to the average man's life within a quarter of a century is, in the aggregate, an immense enrichment of the world. Even greater is the enrichment that comes of relief from anxiety, the intellectual and spiritual release, the more abundant flowing of man's powers that follows rescue from the tyranny of fear"—in other words, the man with a body free from disease may experience the real joy of living.

In these days of enlightenment every physician may be classed as a discoverer in medical science, but few are selected for fame. Medical science borrows from material discoveries, such as heat, light and electricity.

Mass production and efficiency are seen in the development of hospitals, the development of nursing and the development of clinics. Then there is the rapidly developing social side of medicine, with the social service nurse as an aid to the public, the doctor and the patient.

HOSPITALS

The demand of the public for hospital service has been so great that development can hardly keep pace. Sickness at home with only home nursing and the family doctor in attendance is rapidly passing, and this ancient method of caring for the sick will disappear when the wide spaces are supplied with hospitals. Already there are 170 hospitals in this state for community use, with a total of 14,000 beds. There still remain 24 counties without hospitals to serve the communities. Most of this development has been within the last 30 years, and it is not yet able to keep pace with the increase in population. A modern hospital is judged by its laboratories and the physicians attached to the service. Every hospital employing internes has become a teaching hospital for nurses and internes. It will require specialists of a higher order to lead the student-physicians and meet other present-day demands of the public.

The public favors the gathering of physicians into groups called clinics. At present there are three forms: One form independent of a hospital; another, more or less intimately associated with its hospital, a part of it; and a third, the closed hospital. The closed hospital may have a salaried staff. All three forms are active in this state, and public patronage indicates that all three forms are working.

Under the present method of hospital training after graduation, before the student is allowed to practice, most of the student-physicians will seek a hospital alliance where they may have the benefits of laboratory investigation and a chance to grow. This means that a county or adjoining counties desiring good medical service must furnish a community hospital. Greater public interest will be manifest when such a hospital is built by local rather than by general taxation. Local public interest must be aroused, and is being aroused, by education along various channels, particularly that of the Joint Committee on Public Health. This is noted by the ever-increasing demands for popular lectures on health topics. Physicians will readily serve when the community furnishes the hospital. Many counties are spending large sums for transportation to the University Hospital of patients who might be cared for in local hospitals of proper standing.

The public has demanded a better stand-

* Delivered at General Session, 106th Annual Meeting Lansing, September 15, 1926.

ard for hospitals, and better training for physicians. The cost of a medical education is so great that the physician cannot afford to stop at a cross-road or even a small village unless there is a community hospital there. Telephones, cars, and airplanes are bringing the people from the backwoods to the community centers. A short time hence farming will be done from a community center.

LICENSURE

A medical examining board has been appointed by the Governor to protect the public from imposters. No one should be allowed to treat the sick who is not examined and licensed by this board. Health legislation might be greatly simplified if all medical bills that come before the legislature were submitted to this board for advice concerning the merits of such pending legislation. "It would from many a folly free us and foolish notion." The man who specializes in crank shafts or spinal columns may know little about the automobile, combustion, or the human body and its ailments. To the public demanding the best in physicians I would suggest: See that they are properly labeled and take no others!

TRAINED NURSE

The trained nurse followed the development of the hospital. Thirty-six years ago the second University Hospital was opened for patients and a training school for nurses. Two years were required for training a nurse, after which time she was expected to give full service whether employed in the hospital or on private cases in homes. One sees a great change in 30 years in this regard. The nurse has risen from a mere servant to a dominating character with no limit to her possibilities. She has become organized and specialized. The public likes it, and pays the price. Next to high-priced cars and diamonds, sickness can be made the greatest luxury of modern times. Hospital wards are made smaller than they were 10 years ago, because of the increasing demands for private rooms. No respectable illness or operation can be successfully treated with less than two nurses—one for the night, and another for the day. Some hospitals offer three eight-hour shifts, and occasionally four nurses may be employed on one case. Most hospitals insist upon employing nurses for 12-hour duty, and at times the number of trained nurses in a hospital will equal the total of all the patients. I mention these facts to show that the public by its demands for service is responsible for the high cost of sickness.

The high cost of sickness may be met by keeping well. The medical profession has for some time been working toward this Utopian end. Our State Board of Health watches water supplies, runs down typhoid before it becomes epidemic, and in a hundred ways is guarding the health of the public with such efficiency that other states have praised and adopted parts of its program. Health examinations have been advised in every county in Michigan. The response has not been as great as hoped for, because of the improper approach.

HEALTH EDUCATION

Health education and examination should begin in the kindergarten and continue through the grades of the public and parochial schools. A fine example of what can be done along this line is seen in the work of Dr. R. C. Mahaney in the schools of Owosso. Here will be found the prospective tuberculosis patient at a time when discovery and proper advice may forestall not only this disease, but others of less importance. The public can do no greater missionary work for itself than to demand of the Health Commissioner, and the Joint Committee on Education, the formation and extension of some such plan as Dr. Mahaney is using in the public schools of Owosso. I would suggest this as a topic for discussion at golf tournaments, bridge parties and church gatherings.

TUBERCULOSIS

Tuberculosis still remains the outstanding disease for study and special treatment. Through the distribution of knowledge of this disease much good has come by awakening the public to health consciousness, creating in this way a desire to learn how health may be preserved, as well as the prospective cure of disease.

Back in the eighties, the first tuberculosis sanitorium with a laboratory attachment was erected at Saranac Lake by Dr. Edward Trudeou, of whom Osler wrote: "And this is the lesson of Edward Trudeau's life—the lesson of a long and successfully fought campaign. An implacable foe entrenched within his own citadel has been often brought to terms of a truce, never wholly conquered. He was set at once a tower of strength and a splendid example."

Trudeau's Autobiography is one of the great American books. His was a great battle—a battle still being fought by others. Twenty-five years ago this same Trudeau made the extraordinary statement for the time that 75 per cent of cases of pulmonary

consumption might be expected to recover if recognized in time and placed in favorable surroundings. Today we are seeking a tuberculosis sanitorium which shall be a school where the patient-student is taught how to care for himself and how to protect others.

The development of proper sanitoria has been slow in Michigan because the public has not understood. The recent opening of the After Cure Tuberculosis Farm, near Ypsilanti, will be a very impressive lesson about the curability of this disease. The program which will be presented by the committee should be carried forward.

SOCIAL SERVICE

The wave of interest in crippled children which recently swept this state was of wonderful educational value to the various societies interested, teaching them that many deformities require years of careful manipulation and treatment to get the best results; also that the well-to-do person can find much satisfaction in being a crutch or a cane to his unfortunate brother. In his continued interest, he comes to understand, in a small way, the disappointment that a surgeon must face when there is failure of co-operation in the treatment of these cripples. He begins to doubt the miraculous touch of a Lorenz—even the bloodless touch.

The physician has neglected an interest in social service medicine, leaving it to lay organizations and nurses. It is a phase of the work that may well come under the direction of the County Health Officer when one is appointed. All of this work demanded by the public, where the physician is concerned, is being undertaken in a proper spirit.

Outside of the physicians' realm except as a personal factor, one social menace deserves mention here: Death from motor accidents in Michigan is rapidly increasing, say nothing about the terrible injuries which doctors of the state are called upon to attend. We speak about making this state a summer resort. If we are going to do this, we should indicate that we are not so much given to the killing of one another in collisions with other cars or railroad trains. The lessening of this death rate is not like smallpox or diphtheria, where the physician can partly control by vaccinations, but it remains entirely with the public. It is OUT OF THE SPHERE OF MEDICINE to prevent these accidents, most of which are a personal or public neglect. They materially disturb the six-year increase of human life previously spoken of, and one may ask what is to be done to lessen these appalling mishaps which occur through no fault of the doctor, yet necessitate the reporting of death where deaths occur. We see a two-fold advantage in the announcement made by the University of Michigan that irresponsible students are not to be allowed to use cars in their junior University years. It has been suggested that safety be taught in the public schools. Here it might well be entered as part of the children's health curriculum.

LEGISLATION

Regarding laws which pertain to our profession and to public health, I would suggest that the Committee on Legislation and Public Policy meet very soon with the Council and the Health Commissioner to prepare an outline of our plans and policy, and that a copy of their recommendations be sent to every member of the Legislature before that body meets for the transaction of business. To safeguard the lives and happiness of the people laws are being made to keep pace with the progress of modern invention. Can we not hope that our appeal to this body for preserving the health of the people and defending the progress of medicine will have like recognition?

FAMILY DOCTOR

The passing of the family doctor will be met by education—school training of what to do until the doctor arrives. Specialists in all fields of medicine will act as medical advisors—directing their friends and patients. The doctor, wherever he goes, has become a social being. The cloak of dignity formerly used to hide ignorance has been destroyed, and his general knowledge of what is happening in the medical world must be up to the last minute. He must be alive to what is going on in his world. He should be a member of the State Society if he is to have any professional value. He will spread the gospel of good health wherever he goes. He should place a high ethical and professional value upon himself if he would have a good public rating—all of which he cannot acquire with a diploma and a rubber stamp.

APPRECIATION

Fellow Doctors—Forty years ago I remarked to a friend, with whom I was discussing the question of honors which might come to one, that I would rather be president of the State Medical Society than the Governor of Michigan. That remark still stands. I thank you for the honor.

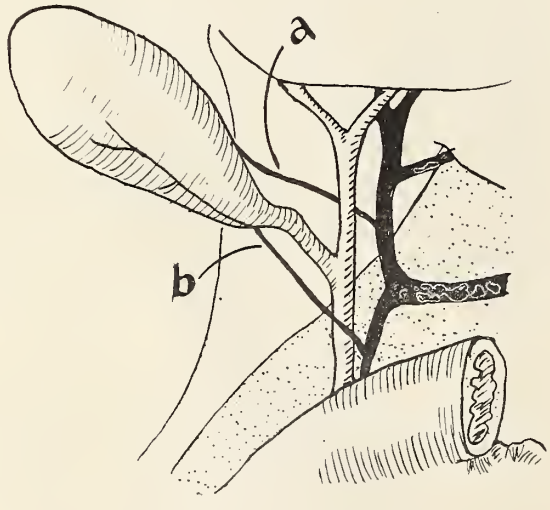
AN INTERESTING BILE DUCT ANOMALY

J. BELLAS, M. D.
MARQUETTE, MICH.

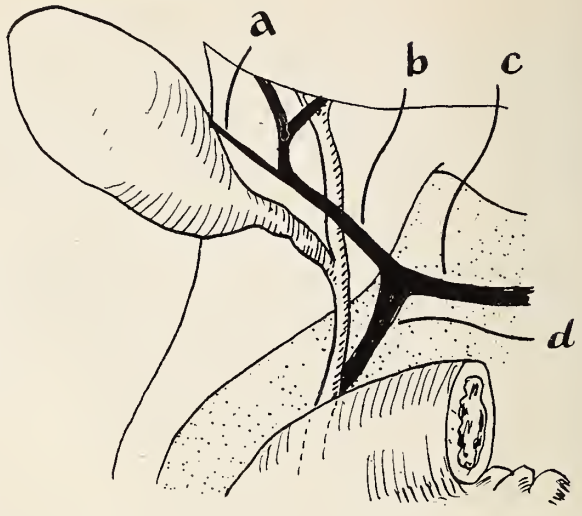
Bile duct anomalies are by no means infrequent so as to be uncommon. It is within the experience of every surgeon to run across these anomalies in some one of their forms, at one time or another.

The normal anatomical formation of these ducts is as follows:

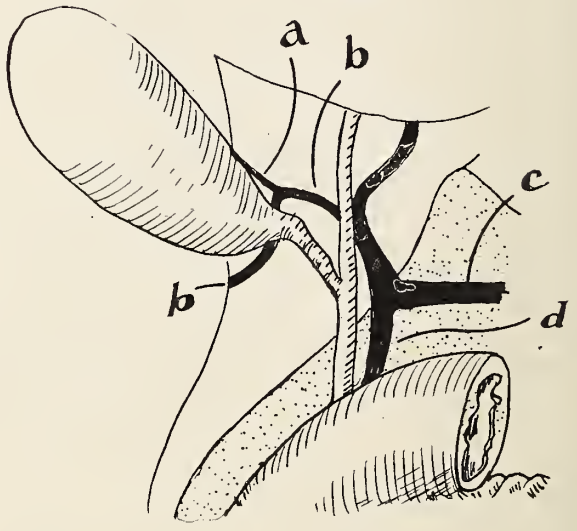
The two hepatic ducts, right and left, leading from the right and left lobes of the liver respectively, unite in the portal fissure to form the common hepatic duct. As the latter descends it is soon met by the cystic duct leading from the gall bladder, and the two unite to form the common bile duct. This descends downwards and to the left between the folds of the lesser omentum in front of the Foramen of Winslow, behind the duodenum to empty into the middle of its second portion on its inner wall, the terminal course of the duct traversing pancreatic tissue and duodenal wall. Its terminal end expands into the ampulla of Vater in the duodenal wall and receives the pancreatic duct. Normally the bile ducts lie anterior to the portal vein with the hepatic artery lying medial to the common duct. The hepatic artery ascends and divides into left and right terminal branches. The left supplies the left lobe of the liver. The right crosses behind the common hepatic duct above its junction with the cystic duct, to enter the right lobe of the liver after first giving off the cystic artery. The cystic artery runs transversly to the right and ramifies on the surface of the gall bladder and



A



B



C

Figures A, B, C—Bile ducts of normal formation. Variation in formation of hepatic artery and branches.

in the angles between the gall bladder and the liver.

The illustration sketches indicate the most common anomalies met.

CASE REPORT

The following case presented an anomaly which I have not seen described and I would be interested to know if others have met similar cases.

The patient is a young woman of 28, single, employed as a house maid. Presented herself on April 14, 1926.

Family History—unimportant.

Previous Illness—Measles, "Flu" 1920. Attacks of grippe and tonsillitis. Last tonsillitis in February, 1926.

Operations—Appendectomy, 1912.

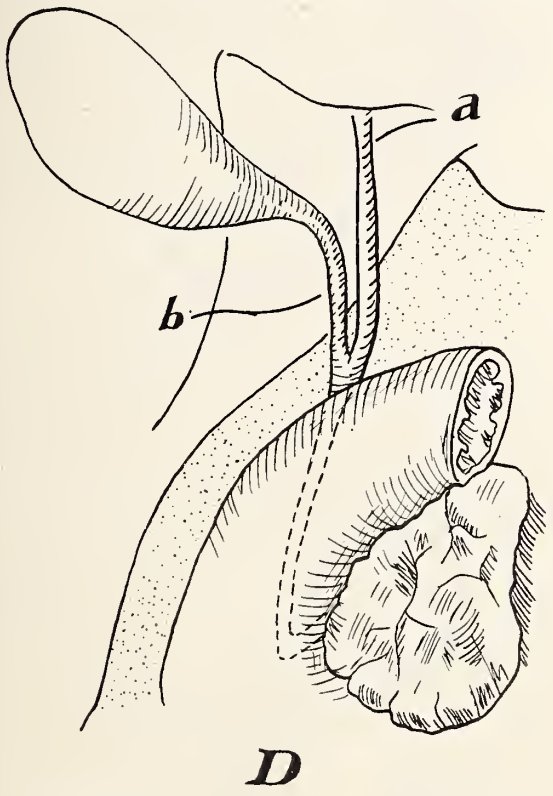
Menstrual History—Regular cycle 28 4-5. Profuse flow. Some pain. L. M. P. April 12, 1926.

Present Illness:

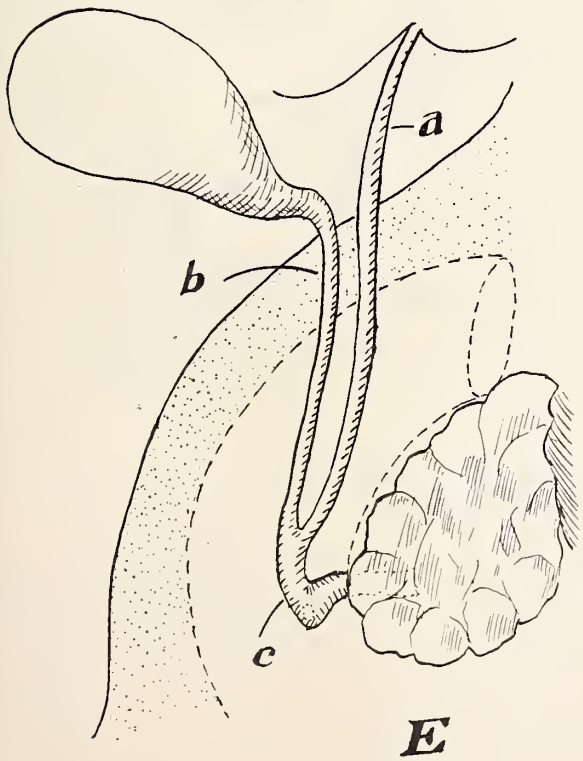
Chief Complaints—

1. Pain in upper abdomen and vomiting.
2. Jaundice.

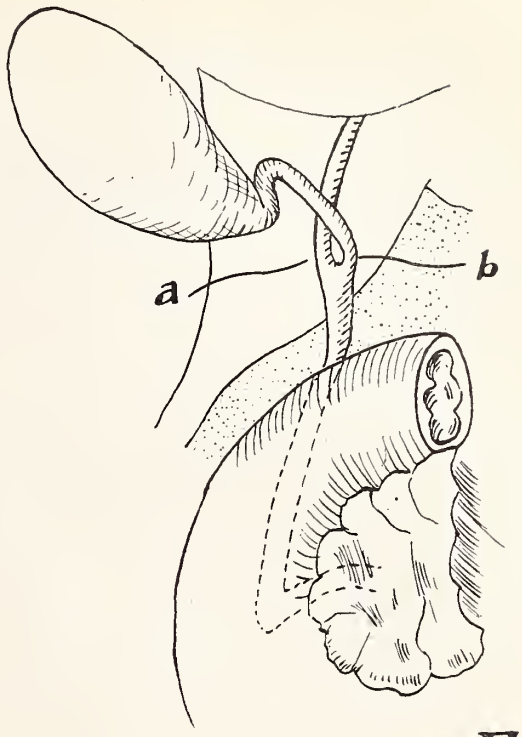
The patient started vomiting first yesterday morning, and severe pain in upper abdomen developed shortly after. The pain has become steadily worse. It was sharp and colicky in character and left a residual soreness in the epigastrium. The jaundice appeared this morning. The pain shoots through to back between the shoulder blades. The patient had noticed her urine high colored a day or two before the onset of definite jaundice. She has had previous similar spells. The first attack occurred six years ago with pain and vomiting but no jaundice. There was a free interval until last fall when the patient had four attacks. In the last of these she was slightly jaundiced. The present attack is the most severe.



D



E



F

Figures D, E, F—Variations in formation of bile ducts.

(a) Common hepatic duct.
(b) Cystic duct.
(c) Ampulla of Vater.

(Modified from Eisendrath, J. A. M. A. Sept. 14, 1918)

Physical Examination:

Head—sinuses, ears, nose—Negative.

Eyes—The sclerotics were definitely yellow.

Throat—Chronically inflamed tonsils were found.

Neck—Enlarged glands were felt in the sterno—mandibular angles. No goitre.

Heart and Lungs—Negative. Blood pressure 118/85.

Abdomen—There is definite acute tenderness under right costal margin upon pressure, and this is rendered worse upon taking a deep breath. No tenderness elsewhere. Nocosto-vertebral tenderness.

Skin—The patient is deeply jaundiced all over her body.

Reflexes—Normal.

Laboratory Findings:

1. *Urine* showed positive presence of bile.
2. *Blood,* Leucocyte count 5,500.
   Coagulation test, two minutes, six seconds.
3. *X-Ray* of gall bladder following the intravenous injection of sodium tetraiodophenolphthalein showed an imperfectly filled gall bladder with negative shadows at 10 hours. At 14 hours, there was practically no shadow.

Pre-operative Diagnosis:

1. Cholecystitis with Cholelithiasis.
2. Probable stone in common duct.

Operation:

Transverse incision through right upper abdomen passing in continuous fashion through all layers including peritoneum. The gall bladder bulged into the incision. The stomach was examined and found normal. The gall bladder was reddish-gray, thickened, closely adherent to the liver and to the duodenum. Adhesions to the duodenum were separated and the gall bladder shelled out of its liver bed from above downwards.

The gall bladder was shelled out of its bed and freed down to the neck. At this point the anomaly was found. There was apparently no cystic duct, the pelvis of the gall bladder uniting directly with the junction of the common hepatic and common bile ducts. I was tempted at first to clamp across the gall bladder neck with a view of terminating the cholecystectomy but better judgment compelled me to desist and to do a little more blunt dissection. I uncovered a situation such as illustrated in Figures 1 and 2. The hepatic and common ducts ran up parallel to meet the pelvis of gall bladder ,and had been so matted together as to give the appearance of a continuation of the gall bladder neck. Clamping at this point, as I had at first been inclined to do. would have severed the two ducts and have caused a complete obstruction to the flow of bile. No stones were felt in the hepatic or common ducts but a large stone the size of a hazel nut, was found impacted at the junction of the hepatic and common ducts with the pelvis of the gall bladder and was in all probability the cause of the jaundice. The stone was pushed back into the fundus of the gall bladder and the pelvis of the gall bladder clamped and ligated some distance above the point of junction. The rest of the operation was then completed in the usual manner.

Pathological examination—Revealed strawberry gall bladder with one large stone and two small stones of mulberry type.

Progress—For three to four days following operation, on an average of once daily, the patient was seized with typical sharp attacks of gall bladder colic, which I ascribed either to passage of some small stones located high up in hepatic ducts, and so inaccessible to palpation, or to some stagnant bile or mucus that was in the process of working down. Her jaundice, however, became progressively alleviated. She had no more attacks after that, and further progress was a source of pleasure to the patient.

At this point, I would like to say a few words in favor of the method of removing a gall bladder from above downwards. Many of the eminent surgeons have taken it upon themselves to speak in scornful terms of the practice of applying this method, declaring it unsurgical, and have contended that the method of removal of the gall bladder from below upwards was actually the easier after becoming accustomed to it. In my humble way, I have been unable to see the logic of this argument. In several informal interviews with surgeons of repute, I have succeeded in obtaining the admission that it made no difference which way a gall bladder was removed, and that in many cases it was considerably easier to remove it from above downwards. As one surgeon put it, "Both methods will do, but you are supposed to be more of a clever surgeon if you remove it from below upwards." I maintain the contention that the *easiest* way is the cleverest way. I have heard Dr. Willard Bartlett of St. Louis quoted as having said. "When we strike a difficult gall bladder case, we always remove the gall bladder from above downwards because it is the easiest way. Why not apply it in all cases?"

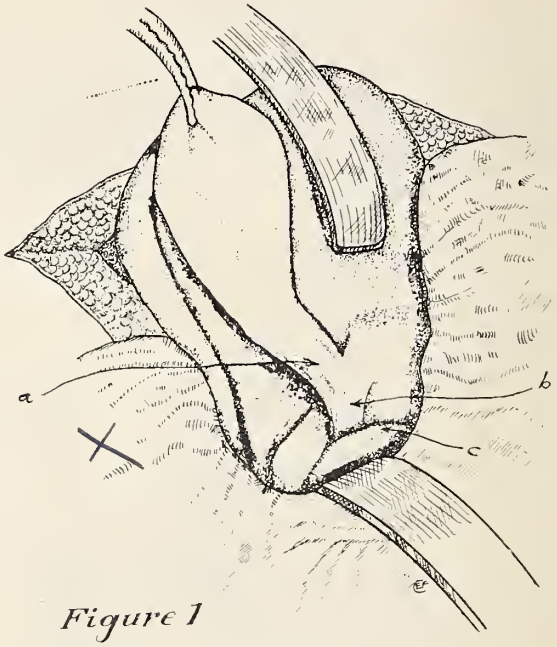


Figure 1

(a) Apparently the neck of the gall bladder.
(b) Apparently the common bile duct.
(c) Duodenum.

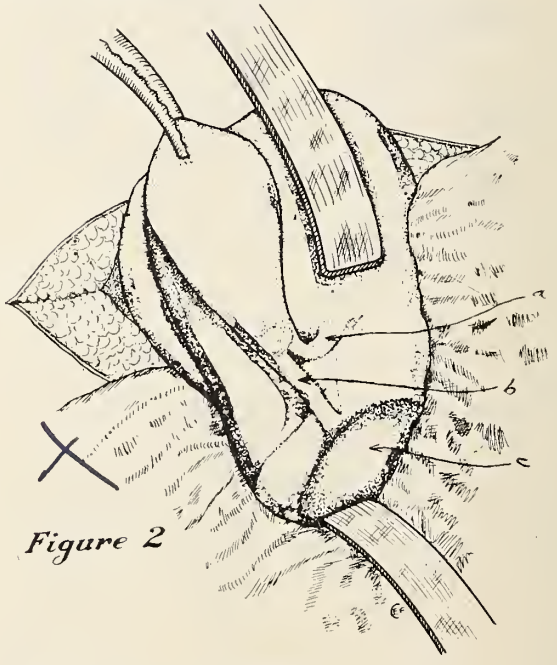


Figure 2

(a) Common hepatic duct.
(b) Common bile duct.
(c) Duodenum.

It seems to me logical that a procedure that reduces cholecystectomy from an operation of major proportion to one that hardly demands more technique than is employed in an ordinary appendectomy, should be a method of choice. I have heard the contention that excessive bleeding would occur which would obscure the field, and prove very troublesome on account of the cystic artery not being clamped. But there is no bleeding or it is so little as to be negligible. The fine terminal ramifications attend to that.

CHAIRMAN'S ADDRESS SECTION ON GYNECOLOGY AND OBSTETRICS*

HOWARD CUMMINGS, M. D.
ANN ARBOR, MICH.

At times, during the active practice of our specialty, it is of value to stop and consider the advancements being made; the problems neglected or unsolved; the discarded and discredited theories and practices. Only in this way can one keep abreast with his field of medicine, and truly grow.

In obstetrics, a few but very significant changes are taking place. Prenatal care, long neglected, has been emphasized by outside influences. Today, the physicians in any community, who dare to neglect prenatal care, find their patients aided and advised by nursing organizations, state boards of health and even by federal agents. The obstetrical patient leaves the local physician and obtains care at the hands of obstetricians who do give prenatal care. These changes are often advised by outside agencies.

The recent literature dealing with the conduct of normal labor, has been very meager, but much of value could be written. The practice of using rectal instead of vaginal examinations in the conduct of labor, is a hopeful sign. Although vaginal examinations are useful, their frequent use often jeopardizes the patient's life, when operative intereference from above becomes necessary.

The erection of modern hospitals in many communities, has made the care of abnormal obstetrical cases much safer for the patient and more convenient for the doctor. The growing tendency of primiparous patients to seek hospital care, should be reflected favorably in our material and infant mortality statistics.

The recent hysteria, produced by advocates of painless child birth, has subsided: The rational use of gas, ether, and morphine has been adopted with good results to mother and child.

Radical procedures in obstetrics, for example, versions and extractions, episiotomy and low forcep operations, manual removal of the placenta in all cases, are gradually waning. All of these procedures are extremely useful, but the selection of cases and judicious use of these measures, will supplant their routine use.

Cesarean section, on account of the ease with which it could be done, threatened to become a panacea for all complications of obstetrics. No doubt the low Cesarean section has extended the field of usefulness of this operation but it is technically more difficult and is not always successful. The knowledge that Cesarean section is not without maternal mortality; that subsequent pregnancies carry added risks; that this operation does not solve all of the complications of pregnancy, is gradually placing Cesarean section in its proper place.

The field of neglected and unsolved obstetrical problems is large. The physiology of the ovary and placenta is not complete. The toxemias of pregnancy are not understood, and although they have been classified, and differentiated pathologically and by laboratory tests, their origin is not known and the methods of treatment are at wide variance. At present, the more conservative measures of treatment are in the ascendancy, at least, these measures are usually tried before active measures are instituted. Much might be accomplished if uniform history records and laboratory methods were used on all cases of toxemia of pregnancy. One physician's experience is usually limited but uniform data gathered from all of the Class A hospitals of Michigan, might give valuable information about this subject.

Aseptic technic in the management of obstetrical cases, is without doubt on a higher plane. Our record is far from perfect but by constant vigilance this can be improved. When puerperal infections do develop, conservative measures in treatment give the best results. Curettage, hysterectomy, abdominal incision and drainage, intravenous injection of dyes, have all proven disappointing. The natural protective agents of the in fected individual, aided and supported by external means, offer more hope for recovery than do active measures.

Surveying the field of obstetrics, one is forced to conclude, that slowly but surely, the quality of service given the pregnant woman, is improving; that scientific re-

* Read at 106th Annual Meeting, Lansing, September, 1926.

search workers are too few; and that radical measures are giving way to more conservative treatment.

The speciality of gynecology is still divided by the general surgeon and the obstetrician. A discussion of the relative ability of these men to handle this field is futile. Only the end results should be considered in forming an opinion.

For years physicians have treated women locally for endocervicitis. Consider the long list of drugs for local application that filled the older text books of gynecology. Tampoons used at varying intervals, over long periods gave slight relief. The chain of events, cervical laceration, ectropion, erosion, infection, ulceration, and malignant degeneration, was not studied but treated. A marked change has taken place. Lacerations are repaired. Ectropion and erosions are cauterized. Endocervicitis is cured by means of the cautery, the Sturmdorf operation, radium, or, amputation. By these methods the number of cases of cervical cancer should be greatly reduced.

Infections of the female generative organs and damage due to child bearing will always lead the list of conditions met by the gynecologist. What changes have occurred in the treatment of these conditions? The knowledge that the lower peritoneum and pelvis would withstand a vast amount of infection made the early gynecologist too bold. Today, instead of rushing into the acute pelvis, nature—still the greatest physician—is allowed to do her work. Posture, rest, supportive measures, heat, vaginal drainage when necessary, give excellent results. The reparative power of the pelvic structures often make further intervention unnecessary, but when abdominal entrance becomes necessary, it is done with far greater safety and with fewer chances of intestinal adhesions and complications.

Operations for misplacements of pelvic organs and plastic repairs have become somewhat standardized. Only a few have been retained, these have been proven and give the desired results. The deciding factors in the choice of these operations are, the age of the patient, and the desirability of future childbearing.

The advent of radium has changed our prognosis in malignancy of the uterus. Adenocarcinoma of the fundus because of its slow growth and protected position is still best treated by panhysterectomy. Cancer of the cervix, if very early, should be treated surgically, with radium as an adjunct. The moderately and far advanced carcinomas of the cervix respond well to cautery and radium or radium alone. The troublesome discharges and hemorrhages are controlled and many of these unfortunates are given several years of comfortable living.

The menstrual disturbances produced by small fibroids can also be treated sucessfully by radium.

By far the most progressive step made by the modern gynecologist is conservative surgery of the uterus and adnexa. The salvage of ovarian tissue in inflammatory disease; the retention of the menstrual function; plastic surgery of the tubes; temporary sterilizations; all of these are advancements and give most gratifying results.

The field is large. Many unsolved problems remain. Much is to be accomplished. Let us studiously and seriously consider these things that we may aid in their solution.

FUNDAMENTAL PRINCIPLES—SPECIAL REFERENCE TO THE GASTRO-INTESTINAL GRADIENT*

D. MURRAY COWIE, M. D.
ANN ARBOR, MICH.

Fellow members:

May I extend to you my keen appreciation of the honor you have conferred upon me by electing me to the chairmanship of the section on Diseases of Children.

As an internist for many years before attempting to develop the department of Pediatrics and infectious Diseases at the University, I naturally became interested in what I like to call comparative medicine. comparison of disease processes in adults and children. There are, as we all know, certain other diseases common to both periods but differing in their clinical manifestations and in their effects on the organism. It is not enough to know the common disease in the adult; that information, no matter how well founded, does not give the physician the knowledge he should possess to make the greatest success for the sick children who have been entrusted to his care. It might better be said that he who knows all the hazards of disease processes in infancy and childhood is better fitted to acquire knowledge of adult medicine. Many of the diseases of adult life are consequent on disease in childhood which has often been missed or overlooked.

Because of these facts I am going to dwell as I have in the past upon the importance of studying fundamental principles. Nowhere are they of quite as much value or

* Chairman's Address, Section on Pediatrics, Michigan State Medical Society, 106th Annual Meeting Lansing, September, 1926.

is their applied knowledge of quite as much effect as in diseases of infancy and childhood. The infant with his first disease is a perfectly normal animal reacting to foreign influences. An adult is not such an animal. His reactions to foreign influences are doubtless modified greatly by previous illnesses, particularly those acquired in childhood.

For example, when we study the fundamental principals governing edema—acid base balance, conduction of food through the alimentary canal, we will find our purest information comes from the study of these processes in the young previously normal infant or child.

Comparative medicine carries us still farther; into the field of disease processes in the lower animal. The study of diseases peculiar to the lower animals, even though these diseases do not occur in man, will throw light on analogous processes in man. We sometimes are unable to cause this idea to penetrate certain medical minds that deal with special divisions of medical thought. The purist pediatrist, for example, might possibly object to the publication of important fundamental information in a journal devoted to pediatrics because a goodly number of the observations were made on adults and he failed to see that they were recorded for the purpose of contrast, or a journal of clinical medicine might object to the acceptance of important fundamental observations because they were made on animals. What have rats to do with clinical medicine? Fortunately, during the past few years, special clinical journals have taken up the task of presenting this material in comprehensive reviews; "Medicine" for example, and in the field of the so-called pure science, "Physiological Reviews."

There are some comparatively new observations that have been made on animals, few on man, that are revolutionizing our ideas of the normal physiology of the gastrointestinal tube. Some 23 years ago I presented a paper to this society dealing with the then newer physiology of digestion. It is not new to you now, but it was 10 or more years before physicians in general and gastro-enterologists in particular were willing to accept it and add it to their knowledge of the pioneer physiology of digestion so wonderfully worked out in our own state by Beaumont in 1832. At that meeting in the discussion I was well walloped, as the boys would say, for expressing such adverse views, based as they were on the new observations of Pawlow and his co-workers. My only refuge in rebuttal was to call their attention to the fact that their information on the physiology of digestion began and stopped with the work of Beaumont.

"KNOWLEDGE COMES BUT WISDOM LINGERS"

I will not have so many adverse critics today because you are familiar with the fact that many of what were once thought to be cornerstones of physiology have been abandoned and others set up in their places. This has been occasioned by the great increase in our general knowledge and by the development of better methods of study. The physician is now awake to the possibility of other cornerstones being replaced. For example, the whole fascinating structure of vagotonia and sympathicotonia is tottering on its foundations.

As the group of gastrointestinal disease is one of the most important groups of childhood diseases, with the hope of seriously interesting you in the subject, I am going to call your attention to a still newer physiology of digestion. Much is known of the chemistry of digestion. That field has been tilled, retilled, and tilled again. Old knowledge frequently comes to the foreground as a new thought as for example fractional stomach analysis. If you will consult the first number of the first volume of the *Archives of Internal Medicine,* published 18 years ago, you will find an article by Dr. Munson and myself describing the method in full and showing its clinical application, and several years previous to this (1903) I had described it in "The Physician and Surgeon."

The study of the mechanical process of digestion have been neglected, notwithstanding the masterly work of Alvarez and his pupils, begun in 1913. What can be of more importance than the proper flow of the stream through the alimentary tube? If there are mechanical barriers to this flow, only trouble can result. These are the principles I wish to outline and briefly review with you today.

It has long been known that the chemistry of digestion proceeds normally if all nervous connection with the stomach is severed. We now know that gastrointestinal rhythm, tone applitude of contraction, and peristalsis proceed normally under similar conditions. Nerves are unnecessary for the performance of these functions by the gastrointestinal musculature. Nerve reflexes seem to have very little to do with the digestive processes. All the synapses may be cut, all the ganglion cells may be destroyed, the entire cord may be pithed—the processes of onward propulsion of ailment continues and abnormal processes may be induced the same as in the intact animal. Nerves act

simply as conductors of impulses to and from the brain or higher centers. The registration of pain and the symptoms of collapse for example.

There is then complete autonomy or independence of the gastrointestinal musculature. Once this idea is accepted, an entire new light is shed upon digestion and disturbed digestion. Once you cut yourself off completely from reasoning on sympathetic and autonomic control and from the necessity of Auerbach's plexus for the explanation of gastrointestinal phenomena, you will find much to interest you, and you will find satisfactory explanations for the many clinical happenings, and responses to things you have done for your patients, and have wondered why the good was produced.

There is a gradient of forces operating from the cardia to the pylorus, from the duodenum to the anus. That is, the duodenum beats fastest and the colon slowest with gradations in between. In other words, the gastrointestinal rhythm varies inversely as the distance from the cardia and pylorus. There is also a gradient of irritability and of tone. The tone of the duodenum is greater than that of the lower ilium. There is a gradient of metabolism. The metabolism as estimated by the output of co^2 is greatest in the duodenum and least in the colon. There is a catalase gradient and a gradient of electrical conduction. I predict in the future the term intestinal or stomach block will be as commonly used as heart block.

As pointed out before, these processes go on in the muscle itself when every vestige of nerve network is destroyed. The individual muscle fibres can be seen to operate in these ways when they are placed under normal conditions as to temperature, perfusing or immersing fluid, etc.

In addition to the above mechanical phenomena there are what Meltzer and Auer in 1907 described as rush waves. With the rabbit's abdomen opened under warm Locke's solution while watching the intestine one may see these rush waves traveling for 10 or 15 cm., often for longer distances. These are peristallic waves and are differentiated from the rhythmic beating. They are however apparently associated with tone waves which are rhythmic. It may be that the rush waves are initiated by the tone waves as the rush waves appear to start in some, for the moment, highly irritable spot. Alvarez estimates their speed to be 6.5+1.8 cm. per second. They acquire speed the farther down the bowel they travel. We have been able to verify all these phenomena in our laboratories. They are all links in a long chain that will, I believe, before long give us the interpretation of digestive happenings we have never understood.

The fact that there is no difficulty in reproducing these gradients experimentally on a normal animal would seem sufficient evidence to establish them as integral parts of a co-ordinated mechanism which has to do with the regular flow of the intestinal stream.

These gradients are influenced by happenings that bring about a balance of muscle tone. This balance of tone brought about by distension of the stomach or gut initiates contraction. A high contraction at the duodenal end, for example, will heighten the gradient and increase its rate down the canal. Certain foods react differently. Thin fluids in the stomach after a time bring about contraction while solid or thick substances bring it about more quickly and more vigorously. If the gradient is raised too high by and irritant, some distance below the pyloric ring, the upstream waves may become strong enough to give symptoms of reverse peristalsis.

One may ask why are the nerves? As stated before, they are conduction and regulatory mechanisms. There seems to be no question but that they act to prevent over contraction of the gastro-intestinal musculature. Alvarez likens the effect of their absence to the condition of muscle contraction seen in the cerebral palsies.

What is the clinical application or what is the theoretic application of these newer ideas to the every day problems of the busy practitioner, particularly the pediatrist? One may play with the facts here brought out and figure what would happen, for example, if the lower intestinal segments began to beat faster than the upper, or the middle segment slower than the distal segments, or what would happen if a strong stimulus or an irritant was applied at a given place in the intestinal tube. Many symptom syndromes can thus be worked out. As a matter of fact any syndrome that would logically result from such reasoning does result in practice when the conditions are favorable.

If we irritate or pinch a part of the gut, waves of contraction spread out in all directions. Most waves naturally spread out with the normal flow of the intestinal stream. If however the stimulus is great enough, the waves starting upstream may block waves already started down stream and cause a disturbance, such as the symptoms of reverse peristalsis—a feeling of aversion to food, heart burn, nausea, vomiting. This is particularly true of irritation applied

to the lower bowel where the gadient is slower. A smaller stimulus here, I fancy, is more productive of symptoms than a similar stimulus in the duodenum would be for the simple reason that the oncoming waves are less powerful and are accordingly more easily overcome. Those of you who have had much to do with gastric or duodenal ulcer patients must have been impressed with the infrequency with which these people complain of nausea or vomiting; yet the irritation is so great at times as to produce a circular contraction of the stomach or gut. On the other hand witness the effect of a slight inflammatory reaction in a child's appendix or of the pinching of a small bit of gut in a hernia ring. Who among you has not seen regurgitaton in a normal infant stopped when the bowels are moved freely by a laxative or by the onset of a mild diarrhea, and vice versa the factors producing a great irritation may thus induce waves in both directions and result in vomiting and diarrhea.

It has been shown that toxins of various kinds affect the gradient usually in its upper portions where the metabolism is the greatest. We have confirmed Alvarez' findings in our observations on sick animals. A few examples will suffice to illustrate the point. My dog developed a middle ear infection resulting in a severe mastoiditis. So long as the ear was well irrigated and well drained he had no disturbance in his gastrointestinal gradient. As soon as the discharge stopped, nausea and vomiting would develop. This was repeated many times over a period of two weeks. After Drs. Canfield and Furstenburg did an extensive mastoid operation, during which Bob was under ether for three hours, he recovered without any further vomiting. A rabbit with a severe mastitis following parturition showed a complete reversal of the gradient. The lower ilium beat 13.5 times, the upper ilium 7.9 times and the duodenum 2.1 times per minute. (Observation of 39 minutes.)

An interesting case has just come to my attention. This man developed uncontrollable vomiting. The symptoms of intestinal obstruction were so marked that operation was seriously considered. X-ray, however, showed no obstruction. Various things were tried to stop the vomiting when it was suggested that they give the patient some solid food. He ate a large meat sandwich. The nausea and vomiting stopped and did not return. One unfamiliar with the gradient and how it may be influenced would set this result down to a coincidence or to a mystery. No such thing. I have worked this principle time and again with the same result. I believe this patient's vomiting was stopped by heightening the gradient with solid food.

With these few examples we have the answer to the question, how does thick cereal stop regurgitation and vomiting? How does constipatition often produce regurgitation? How does slight irritation in the appendix or that produced by pinching a small bit of gut in a hernia ring produce vomiting? How do parenteral infections—mastoid, mastitis and many other instances I can cite, cause symptoms of reverse peristalsis? They all find their explanation in the principles advanced by Alvarez on the gastro-intestinal gradient.

We are just on the threshold of a complete understanding of the many digestive disturbances people complain of which are very real, very distressing, and very disconcerting, and because no anatomic explanation is at hand, they are classed as imaginary phenomena or neurasthenias and little or no attention is paid to them. Neurasthenia is a very difficult diagnosis to make yet it is very commonly made in child and adult. I have seen children and adults with marked exhaustion, with tremor, with an all gone feeling, with great depression or with pallor and sweating, which may be momentary or last for a few minutes, which I believe can be explained on the cerebral action of rush waves. Alvarez records similar observations in rabbits and advances this explanation.

A knowledge of the gradient will compel you to heed more closely than ever before the large group of digestive complaints that in the past have seemed to emanate from a psychically disturbed sensorium. When we learn how to affect the various segments of the bowel, how to make them behave as they should, we will be able to make our pneumonia and heart patients, for example, more comfortable and more sure of recovery by overcoming the embarrassment caused by distension. I can even see benefits that might arise in the treatment of acute diarrhea. Certainly in constipation cathartics will be less needed and food roughage will only be advocated in selected cases while other cases will be cared for by the smoothest possible diet.

If fundamental principles were constantly studied, and could they become a part of us, the greater per cent of the manifestations of disease processes would interpret themselves.

PROCTITIS OBLITERANS

HERBERT I. KALLET, M. D.
DETROIT, MICH.

In every proctologic clinic with a large negro attendance, there will be found many cases of a progressive rectal sclerosis. These patients present a rather definite clinical picture and the rectal findings are so constant that we have attempted to group them under the term Proctitis Obliterans. This grouping has been of service in the interpretation of our statistics and has been helpful in formulating prognosis and treatment.

ETIOLOGY

During the past five years in a series of over 2,000 cases attending the rectal clinic of the Detroit City Physician's Office, there were about 75 that could be called proctitis obliterans. It was accordingly the most common cause of benign stricture of the rectum.

All of the cases were in colored females. There was no observation of the disease in whites of either sex or in male negroes. This fact is of considerable biologic and anthropologic interest.

The reaction of negroes to rectal pathology has been the subject of recent discussion. Rosser (1) in his splendid essay analyzes the peculiar racial tendency of colored individuals to heal by increased fibrosis and deals with the frequency of stricture formation. In 1921, I, too called attention to the prevalence of rectal stenosis in negroes, suggesting a connection with the constitutional background which contributes to the great incidence among them of keloid and fibroma (2).

Martin in his discussion of Rosser's paper (1) points out the infrequency in which strictures occur in males. In both Jones' (3) and Rainey's (4) series, 95 per cent of the cases were in women.

It would appear then that the fact of the occurrence of strictures in negroes is widely known and that its greater sex incidence in females has been suggested.

The age of our patients ranged from 19 to 40. Most were in the twenties. Some were nulliparous; others had born children. There was no constant finding of coincidental pelvic inflammation.

The venereal factors in its origin were given careful consideration. Buie (5) has emphasized the difficulty in pronouncing rectal strictures as truly syphilitic even though occuring in syphilitic individuals. In our series, the Wassermann reaction was positive in only about 39 per cent, a figure not higher than that secured from a similar social and ethnic group not affected with proctitis.

In a previous paper (2) it was pointed out that rectal infections of all kinds are common in persons affected with syphilis, but that the lesions themselves are not necessarily specific.

The possibility of a gonorrheal source was discussed but could not be established. Gonococci were not demonstrated in our cases nor was there elicited a history of sexual perversion. In any instance it would appear that chronic gonorrhea of the rectum would be found in whites as frequently as among negroes and would be capable of recognition even if not characterized by fibrosis and stricture formation. Clinical experience does not bear out this conclusion. Acute gonorrhea of the rectum in adults is comparatively rare and chronic gonorrhea seldom diagnosed.

Tuberculosis could not be demonstrated by smear or section, nor were the X-ray findings those of an intestinal phthisis (6).

At the present time, our understanding of the etiology can be summed up by stating that under the stimulus of a certain type of infection, the rectum may undergo a progressive fibrosis; that negro females are especially liable to this disease.

PATHOLOGY

The characteristic feature is a marked increase in the fibrous tissue of the submucous layers. This fibrosis is associated with hyalinization and continues until there is almost complete obliteration of the rectal lumen. There is a round celled infiltration down into the muscular layers, a thickening and thrombosis of the smaller veins and a partial obliteration of the lympatic vessels. The intima of the arteries is not perceptibly thickened. The mucosa is at first hyperplastic but later approaches the stratified squamous type. It is firmly attached to the fibrous tissue beneath. The rectal valves are involved in the sclerosis and difficult to identify.

The circulation in the distal tissues is impaired and the anal margin may be riddled with ulcers. The lesions are ragged and covered with greyish membrane. Cutaneous tags may form and reach considerable size. Deep seated infection often gains entry through these ulcers and it is not uncommon to find fistulous tracts opening well out on the perineum or communicating with the vagina.

CLINICAL PICTURE

The onset is slow and insidious. The pathology may be well advanced before

* From the Department of Proctology, Detroit City Physician's Office and Detroit Receiving Hospital.

symptoms are manifest. Often the presence of proctitis is noted simply in the course of a routine examination. Discharge is the most constant early symptom. At first it is scant and mucoid in character. As months go on, it becomes purulent and more profuse, irritating the perineum and necessitating the wearing of a pad. Sometimes the discharge is stained with blood but frank hemorrhage is uncommon.

Bowel movements are small and at frequent intervals. As time goes on, defecation grows increasingly difficult. Control is uncertain and complete evacuation impossible.

Pain at first is lacking. If the anus becomes ulcerated, it may be more pronounced but is seldom a prominent feature. It may be referred to the lower back or legs.

X-ray studies made at the Receiving hospital of ten cases of proctitis obliterans show a striking uniformity. The stomach and small intestine function normally. There is no ileocaecal regurgitation. The ascending and transverse colon exhibit the usual haustration. No evidences of defect, dilatation or spasm are present. The opaque meal reaches the splenic flexure unimpeded but from that point its progress is blocked. At 120 hours considerable barium remains in the pelvic colon and in some cases even at 168 hours.

Despite the extreme colonic stasis and a local pathology of marked degree, the general condition of most of these patients is far better than one would expect. They are well nourished, cheerful, free from pain, and able to be about. The syndrome commonly associated with constipation is lacking. We do not find the anorexia, dulness, headache, coated tongue, heavy breath and other symptoms which are ordinarily presented by those whose bowels are inactive.

In late stages of the disease, after secondary infection has supervened and the inflammation extended high into the sigmoid, the patients may become toxic and bedridden. The picture then is one resembling tuberculous enteritis. There is pallor, cachexia, and an afternoon rise in temperature. The stools are watery and incontinent, admixed with blood and pus. There is lower abdominal tenderness and sometimes distention. The urine may show albumin and casts, and the blood count a rise in the number of leukocytes. Death may ensue from sepsis or an intercurrent disease.

PHYSICAL SIGNS

The appearance of the anus depends on the extent of the marginal infection. The presence of discharge, ulcers, skin tags or fistulae may be noted, but is of secondary importance. The anus is of normal caliber; the sphincter sometimes spastic but more often because of the incontinence, relaxed.

The diagnosis is made by digital examination. Very early in the disease, beginning just above the sphincteric area, the palpating finger can detect definite changes in the thickness and consistency of the mucous membrane. The wall feels granular and thickened. The natural elasticity of the bowel is diminished. There may be no lessening of the caliber of the rectum, but the diagnosis can be well established in the early or pre-stricture period. In more advanced cases, the lumen is almost completely obliterated, and the opening found with difficulty. The stricture is hard and resistant. If the examining finger be forced through the fibrous ring, it will be observed that for a distance as high as the examiner can reach, the bowel wall is thickened and very much narrowed. Usually the forced stretching of the examination will liberate considerable quantity of sanguinous pus which has been dammed back from above.

LABORATORY FINDINGS

Laboratory findings show nothing unusual. The absence of specific organisms and the percentage of positive Wassermann reactions has been previously discussed. The blood picture may indicate some secondary anemia. A leukocytosis may be present. Indican and traces of albumin are often found in the urine. The blood nitrogen and sugar are not elevated.

DISCUSSION

Pennington (7) in his text book of rectal disease, classifies chronic proctitis as follows:

1. Atrophic.
2. Hypertrophic.
3. Proliferative.

Other authors use essentially the same nosology.

The atrophic type is characterized by thinning and sometimes ulceration of the mucosa. It has a pale, dry, often glazed appearance. Stricture is rarely a sequel.

The hypertrophic type often follows an acute proctitis. In it the mucous membrane is swollen, spongy and congested, lying in folds and rolls. While somewhat refractory, it yields well to treatment and the prognosis is excellent for complete recovery.

Gant (8) speaks of this type of proctitis as does Pennington but adds that certain of the cases show marked thickening of the rectal wall and go on to stricture formation. These instances would probably come under our grouping as obliterans for the prognosis

and course is distinctly different from the ordinary catarrhal hypertrophic proctitis.

The proliferative group is generally of specific origin, ordinarily lues, although in some cases it is due to tuberculosis, bilharzia, actinomycosis, or the like. In it are to be found multiple granulomata of various sizes and shapes. The hyperplasia is essentially of epithelial origin and the lumen of the bowel may be filled with mushy overgrowth. Strictures are a common result of this proliferation. Such stenoses, however, are soft and can often be dilated. They respond well to treatment directed towards their specific cause.

It can be seen that the term Proctitis Obliterans fills a rather definite niche in the clinical scheme and can be placed after hypertrophic proctitis in a complementary position to proctitis proliferans. In the latter there is emphasized overgrowth of epithelial elements; in obliterans the dominant feature is sclerosis. Both it is true go on to stricture but the one is soft and dilatable, the other fibrous and resistant, the one yields to specific treatment, the other is uninfluenced even in the presence of a positive Wassermann reaction.

The classification of chronic proctitis might be schematically represented as follows:

Non-stenosing: (a.)—Atrophic, (b.)—Hypertrophic.

Stenosing: (c.)—Obliterans, (d.)—Proliferans.

TREATMENT

The general indications are for the reestablishment of a satisfactory fecal stream. adequate drainage, local medication directed towards the proctitis, and general measures to improve the bodily health. The means of meeting these indications can be found in any standard text book of proctology.

PROGNOSIS

No matter what course of therepeutics is outlined, it must be born in mind that the basic condition producing the disease may still be operative and it tends to recur. The relief offered by proctotomy and other surgical procedures is nevertheless so great that the patients are perfectly willing to enter the hospital at occasional intervals for treatment. I have seen cases emaciated and in extreme cachexia, pick up in weight and health, able to return to their usual work a few weeks after drainage has been established.

CONCLUSIONS

1. There is a type of progressive rectal sclerosis which because of its characteristic features, we have termed Proctitis Obliterans.

2. This condition occurs commonly in negro women.

3. Separation of this group from the larger classification of rectal stricture will serve to make diagnosis and treatment more rational and statistics more useful.

In closing I wish to thank Dr. J. Frank Kilroy, Supervisor of the Detroit City Physician's Office for the abundance of material he has placed at my disposal, and to express appreciation to Dr. E. G. Martin and Dr. Louis Hirschman for their many suggestions.

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IMMUNIZATION AGAINST TUBERCULOSIS

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From the rapid advance of preventive medicine in recent years, particularly in the field of immunization, it is apparently only a question of a comparatively short time before tuberculosis, the great scourge of the white race, is mastered. It is my opinion that the first and, most important stage in this very needed discovery since the milestone of 1882[1] has already been passed—that thanks to Calmette and his co-workers, particularly Weill-Halle, we are now on the direct and straight path to success.

For the carrying out of Calmette's present very progressive work as well as preparing for his future observations and those of other research workers, it is opportune at this time to bring the subject of tuberculosis and its immunity before the general practitioners as well as the consultants in all the branches of medicine. This is the necessary first stage to be followed by that of educating the public to the possibilities, with the help of nurses, social workers and midwives, the accomplishment of which will take some time.

It is of course advisable in tuberculosis

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to move slowly in acknowledging successful results for our previous disappointments have been many. On the other hand, when the right measure does come along it is equally necessary for us to take advantage of it as quickly as possible. A very important point that will cause hesitation is the fact that a live bacillus is used. This is far from a precedent, however, for it is a recognized fact that many centuries ago inoculation with live bacteria was practiced by the Chinese, from whom the custom was carried to England by Lady Montague in 1717, in small pox disease.

Immunity may be natural or acquired. Natural is that with which one is born while acquired is induced after birth, either actively or passively. Active acquired immunity results from an attack of the specific disease or by the injection of bacteria (dead or living) or toxin, the body reacting as if actually infected with the disease. As an example of dead bacilli we have typhoid bacillus, as well as many of the milder pus infection vaccines while of the living we have cholera (Haffkine serum) small pox and now tuberculosis, and toxin in diphtheria.[2] Passive acquired immunity on the other hand follows the injection of biochemical antibodies from an already infected animal or man, for example, horse serum in diphtheria and human serum in measles.

Fortunately for the white race there is a degree of natural immunity against tuberculosis. This natural immunity, however, is very easily lost by the many various failings of human nature and is therefore a flimsy one, requiring aid through health education. It is a recognized fact for instance that the natural immunity is over-balanced by so called predisposing causes as fatigue, poor food, poor hygiene and sanitary conditions, severe illnesses, mental anxiety, lack of sleep, etc. Most people have also more or less acquired immunity for original infection in tuberculosis usually occurs in childhood, causing a variable degree of active acquired immunity.

A fact frequently made use of is that of immunity resulting from a mild degree of infection brought about by attenuated bacteria. These organisms are attenuated by growing them on poor media or at high temperatures, passing them through animals, etc. Diminished degree of infection can also be produced by using related strains as cow pox virus in small pox, human tubercle bacilli when immunizing cattle, (followed by injection of bovine bacilli), etc. The number of bacilli used is also most important.

That immunity is anything but a simple matter is exemplified by the white and gray mice. "White mice are naturally immune to glanders whereas the field mouse possesses a high degree of susceptibility. When we consider how slight must be the differences in the structure, the function, the chemistry and the metabolism in the white mouse when compared with its gray cousin, we begin to appreciate the subtle differences and perhaps complex factors upon which immunity depends."[3] When we add to the complexities of immunity the innumerable factors of tuberculosis we get an idea of the immensity of the problem of tuberculosis prevention.

Koch gave us Old Tuberculin "O. T.," then New Tuberculin, followed by "B. E." Old Tuberculin is made by concentrating a filtered glycerin broth culture of tubercle bacilli. New Tuberculin is an emulsion of the residum resulting from extraction with water of macerated living virulent bacilli while "B. E." is a bacillary emulsion of the entire substance of pulverized young virulent bacilli in glycerin. Tuberculin, as a curative procedure, has been very disappointing except in some cases of lupus. In the present light of the disease, it is apparent that it has definite limitations. The principal of its use is to increase the body's responsiveness to the tuberculosis toxin by giving very small and gradually increasing doses which will not at the same time produce a clinical reaction. By this method an increase of the immunity degree of the individual against the disease was contemplated. Tuberculin like mallein in glanders is a soluble tobic substance but different from the so called true toxins of diphtheria, tetanus and botulismus in various ways, particularly in that it is harmless to a normal subject but poisonous to one infected. Because of this however, it is very useful in the von Pirquet test and its modification, Calmette's ophthalmic reaction.

An actively acquired immunity is ordinarily superior to a passively acquired immunity. Because of this fact, where previously immunity against diphtheria was produced by antitoxin, toxin—antitoxin is now used. Several injections of bacteria also produces an immunity that is stronger and of longer duration. Usually protection so acquired lasts under five years and should be renewed.

Amongst Dr. Calmette's concluding observations we have:[4]

1—"Those subjects free from all pre-existing tuberculosis infection may be artifically immunized from natural or artificial bacillary infections.

This immunization is effected by inocula-

tion or (especially for very young subjects) by administration by mouth of emulsions of a living bacillus culture, of virulent bovine origin, of which certain characteristics have been slowly and hereditarily modified by a long series of culture in a very alkaline medium, rich in lipoids (beef bile).

This bacillus, known as BCG,[5] has lost its tuberculigenous properties and conserved its antigenous properties. It is perfectly well tolerated by all species of mammals and birds, and, when introduced even in heavy doses in sensitive organisms, it never occasions the formation of reinoculable tubercles."

2—"In view of the favorable results obtained with animals, and the proof having been made by many prior trials, of the innocuousness of BCG for man, we have extended to young children, particularly the newly born of tuberculous mothers, one attempt at immunization against bacillary infection.

"Our experience over a period of four years has covered a growing number of newly born children. In France alone, up to January 1, 1926, 5,183 nursing infants have been vaccinated by mouth, of which 1,317 in the period of from 6 to 18 months ago, according to the technic which we have described.

"The mortality from tuberculosis among infants from birth to one year, born of tuberculous mothers or raised in an infected family, has been at least 25 per cent, and generally higher, whereas the mortality among children immunized by BCG has been below 2 per cent.

3—"We can affirm that this method of immunization is safe. It results neither in accident of any kind, febrile reaction nor physiological change. It seems to us that its efficacy has been demonstrated. The duration if immunization which it confers cannot yet be precisely stated, but it seems to be sufficiently long to protect young children, until after the age of three years, from family infections if these have not been massive since birth.

4—"It must be understood that this vaccinaton does not dispense with such hygienic measures which serve to prevent or minimize mass infection."[6]

Commenting directly on Calmette's very clear observations, we find that he is using an attenuated bovine bacillus (giving an active acquired immunity) in the new born. This is necessary becaues in tuberculosis the original infection as shown by a positive von Pirquet reaction, particularly in contacts to open cases, often occurs very early in life though the disease may not develop till adolescence or later. It is important that no infection exists in the body when using BCG. It would be equaly advisable even at this stage to vaccinate younger children who are being exposed, but not before three negative von Pirquet reactions. Von Pirquet tests should not be made during or immediately after measles, influenza, and whooping cough.

In inoculating the newly born of tuberculous mothers, Calmette has taken the most fertile field for 77 per cent of the infected in the first year are from tuberculous mothers. His figures on the mortality of these infants from birth to one year is certainly not exaggerated for in some parts of France it is as high as 32 per cent. To reduce this figure to below 2 per cent is truly wonderful for these children are most often continuously exposed to tuberculosis in remaining with their parents. Von Piquet tests remained negative in 80 per cent of the infants vaccinated by mouth.

In no other disease is one exposed so continuously and often to very virulent bacteria as in tuberculosis. For this reason any immunity in this disease must necessarily be a very strong one, however short, to prevent infection. Considering that ordinarily immunity lasts from two to five years in disease where exposure is very short, to produce an immunity lasting three years in tuberculosis is a greater feat than it seems at first. It is known that animals ordinarily immune to tuberculosis will develop the disease if sufficient number of virulent bacilli are injected. This applies to humans as well for whatever the physical condition, even in trained rowing crews or in fully trained prize fighters, tuberculosis can be thus induced. Therefore, if an occasional child in spite of vaccination develops the disease it is only to be expected, if the parent is transmitting large numbers of a very virulent strain of bacilli, or if occuring in mass infection. Hygienic measures are thus as important as previously for the less the chances of infection by the parent (or other) the less a strain is thrown on the degree of immunity and thus the better the results.

It has been frequently shown that animals ordinarily immune to tuberculosis and other diseases will become infected if a very large number of virulent bacilli are used. Trudeau found immunity against tuberculosis in animals could only be produced by the use of living bacilli. At least 10 tubercle bacilli are necessary to cause infection in a guinea pig. In 1911 immunity was produced in monkeys by Webb and Wiliams by using living bacilli. They injected 1 to 200 bacilli subcutaneously, re-

peating at intervals. Two children were also given 600 virulent tubercle bacilli, without resulting disease.

The Oeuvre Grancher in France has produced very good results from placing children of 3 to 13 years old, mostly of tuberculous parents, on farms in charge of healthy peasant families. Recently there has also been an extension of this to children under three years of age. It is a very logical thing to do, removing at birth offsprings of tuberculous parents from the infected family but particularly in this country it appears an almost impossible task at present. Calmette's BCG vaccine given by mouth in new borns is a simple, expedient and cheap method of producing immunity which I hope will soon be as common in all new borns as ordinary vaccination against small pox. In addition, it is a good wedge for the earlier application of diphtheria toxin-antitoxin serum and any other preventive measures that may be advisable.

Figure 1. Similarity of vaccination in small pox and tuberculosis.

Small Pox	Tuberculosis (BGG)
1—Virulent material used of cow pox. (Can also use virulent material of human small pox). Practically an attenuated small pox.	Attenuated living bacteria —bovine strain.
2—Used only as preventive, not curative.*	Used only as preventive, not curative.
3—Produces active acquired immunity.	Produces active acquired immunity.
4—Repeated vaccination required.	Repeated vaccination required.
5—Vaccination advised during first few days of life.	Vaccination in first 10 days of life.
6—Hygienic precautions taken during contact period.	Hygienic precautions taken during contact period.
7—If direct contact, revaccination advisable after 5-year period.	Re-vaccination after three years.
8—Intracutaneous injection or rub dry on mucus membrane of nose.	Subcutaneous or emulsion by mouth—latter especially in new born.
9—Infection all periods of life.	Infection all periods of life. Likely original infection very often during childhood as shown by von Pirquet results.

*—If vaccination is performed within the first few days of the incubation period of a patient already infected with small pox, the developing cow pox because of a smaller incubation period, precludes the completion of the clinical stage of small pox.

Figure 2 shows the deaths from tuberculosis at different age periods, irrespective of sex, in the United States Registration area (87.7 per cent of the active population of the United States). It is here seen that between the ages 5 to 14 years—the school period—there is a distinct low mortality rate from this disease and an opportune time as well as a comparatively easily arranged period for the giving of vaccine to suitable members as part of school routine. The age of the highest mortality is approximately 24 making it apparent that several years must pass before the ultimate result can be judged but the curve should certainly be a very different one.

During the past year the von Pirquet test was applied to 1,135 children of a Parochial school (Polish) in this area.[7] The result of all reactions irrespective of age (7 to 14) or sex was 65.2 per cent positive for contacts and 30.9 per cent positive for non-contacts. In those with undernourishment and underdevelopment, the precentage of positive was greater than in the normal built in both contacts and non-contacts. Since the percentage of undernourishment and underdevelopment increased progressively with increasing ages, it would be advisable when its efficacy is further proven, to vaccinate all children on admission to school, irrespective of their physical condition, providing the von Pirquet reaction is negative (three tests).

There were 1,571 deaths in the United States Registration area from tuberculosis under one year of age—figure 2, which, according to Calmette's results, would have been reduced to below 127, and so on during the following years. It is apparent that could such results be continued, in time the actual cases of tuberculosis as well as the comparatively few new ones could soon be isolated in the already existing sanatoria beds, giving a marked impetus to the lessening of exposure to the rest of the population, exposure to the infection after all being the fundamental cause of the disease.

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THE TREATMENT OF THE UNDERNOURISHED CHILD

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There is no problem in pediatrics which presents so many difficulties as that of the undernourished child. The "spoiled", thin, underweight, nervous, pale child, who refuses to eat, is one of the most common problems that may confront a physician. Quite often the mother brings the child to the physician with the request for "a tonic to build him up", and often the physician accepts this ready made therapeusis, and acquiesces in this form of treatment. Suffice it to say, that the tonic often fails to achieve the desired result, and mother and physician agree that the child can not be made to increase in weight because possibly his father and mother are thin also. It is folly to thus superficially condemn that type of a child and permit him or her to develop physically abnormal.

Due to recent work and writings upon this subject, the profession has been able to gain a new conception of the under-nourished child, and with the aid of nurses and lay nutrition workers, to achieve a different result by a more rational routine. There is nothing difficult or impossible about establishing such a routine, and accomplishing an increase in weight if the physician outlines a thorough-going program, that has the co-operation of the parents.

It is the purpose of this article to outline such a program, and indicate what can be done with underweight and malnourished children, provided that the doctor will assume a positive supervising association with parent and child.

Dr. Emerson gives five causes for malnutrition as follows:

PHYSICAL DEFECTS

In the first place the malnourished child requires a thorough physical examination with all clothing removed. This examination should include an examination of the ears, teeth, tonsils, chest, heart, and a record of the height and weight. Tables stating the relation between height and weight can be obtained from the Children's Bureau at Washington, whereby an estimate of the degree of under-weight may be determined.

It is customary to consider that children 7 per cent or more under-weight are malnourished. This is usually true, but malnutrition is not always a matter of figures. Dublin and Gebhart, in a recent publication have emphasized this point, stating the belief that an efficient physical examination is the most satisfactory way of determining malnutrition.

Pallor of the conjunctiva, circles under the eyes, flabby musculature, mouth breathing, fatigue posture, apparent anemia, protruding abdomen, all lead the physician to a diagnosis of malnutrition, whether the child happens to be underweight or not. Other signs accompanying malnutrition are restlessness, excessive irritability, night terrors, inattention, emotional instability, loss of temper, and unusual worry about himself and others.

Infected tonsils are often the cause of continued malnutrition, and remarkable gains in weight are not uncommonly made, following their removal. However, tonsils need not necessarily be removed to cause a child to gain weight, unless the tonsils show evidence of hypertrophy along with adenoids sufficient to obstruct breathing, unless there is evidence of local infection, with enlargement of the cervical lymph glands, or a history of frequent attacks of tonsillitis and pharyngitis. The physician having taken cognizance of these points, should decide in each individual case as to whether or not tonsilectomy is advisable.

Some other causes of malnutrition are defective vision, defective hearing, carious, abscessed teeth, which the physician will readily appreciate are potential and probable causes of malnutrition.

LACK OF HOME CONTROL

Every physician is acquainted with families in which the child rules the home. In such families it is impossible to accomplish any constructive work in correcting malnutrition, unless the parents can be persuaded that they must rule. If the child may say when he will go to bed, what he will eat, when and how he will play, and otherwise arrange his daily routine to suit himself, it is useless to attempt to correct malnutrition in such an environment. Either the environment must be changed or a new relation established in the home between the parents and the child. Remarkable gains in weight are possible when such children are removed to institutions where a daily routine of proper food and rest is established. Such striking changes are made in a child both physically and mentally after such a routine has been instituted for a few weeks that they are scarcely recognizable as the same children, proving that proper discipline is the chief corrective factor.

OVER-FATIGUE

Over-active children are often so tired when night arrives that they refuse to eat. They have played so hard, or they have so many outside activities, such as music lessons, club interests or shows that they are exhausted at night. Frequently these children do not sleep a sufficient length of time, or sleep well, are restless and complain of pain in their legs.

INSUFFICIENT FOOD AND IMPROPER FOOD HABITS

The food may be insufficient in either quantity or quality. In cases of poverty the quantity may be lacking. In the well-to-do homes children often get an insufficient quantity of food due to the development of capricious appetites.

In the latter type of home the preparation of a child's meals is often left to the care of an untrained servant and the child acquires habits of eating which are improper. The food in such homes is frequently served unappetizingly and improperly cooked, a condition which leads to the eating of an insufficient amount of food.

Improper food habits, such as eating large quantities of candy, or too rapidly without proper mastication or too much of one kind of food are frequent causes of the development of a chronic indigestion accompanied by a troublesome constipation. Children who do not eat a sufficient amount of cereals or vegetables have a small intestinal residue, and are quite commonly constipated.

FAULTY HEALTH HABITS

One of the most faulty health habits is failure to insist on a regular time each day for a bowel movement. The mere correction of this irregularity will in itself relieve constipation. Other faulty health habits are sleeping in poorly ventilated rooms with too much cover, failure to get sufficient fresh air during the day, which is a stimulation to the appetite and sound sleep, failure to brush the teeth at least once a day, failure to drink a sufficient quantity of water, or eating before going to bed.

PROGRAM

To correct a great many of these faulty health habits it is necessary to establish a definite program and the following routine for the under-weight and malnourished child is recommended.

1. A complete physical examination by the family physician.

2. The remedying of defects found by the physical examination that are influencing the child's health.

3. Insisting on a rest period of one half hour in the morning and afternoon, lying flat, and sleeping, if possible. Ten hours rest at night, with the windows open, must be secured.

4. Omit outside classes, clubs, parties, and music lessons. Shorten school hours or give them up entirely if necessary.

5. No vigorous exercise, but outdoor exercise in moderation until weight is normal.

6. The usual three meals a day, eaten slowly, consisting of one to one and a half quarts of milk a day, butter, bread, cereals in the form of oatmeal, Cream of Wheat, Farina, or Ralston food; vegetables in the form of baked potatoes, carrots, parsnips, turnips, rutabaga, squash, beets, spinach, beans; fruits with an occasionally banana; meat once a day, roast beef, mutton or fowl; one scrambled or boiled egg a day; few sweets, and then never between meals.

7. Two extra lunches at 10:30 a. m. and 3:30 p. m., consisting of milk and crackers, or bread and butter.

8. Insistence upon an adequate breakfast, consisting of milk and cereal, toast and fruit.

In my experience there are four methods for making children eat after physical defects have been corrected and a rational hygiene has been established, viz.:

1. Forced feeding because of the firmness and fear of parental discipline.

2. Feeding by persuasion and distraction of attention.

3. Eating because of some reward offered.

4. Deprivation of food until the desired article of food is eaten.

The first method is only applicable to a few parents and children because parents who have well-disciplined children do not have undernourished chidlren. Consequently, feeding by this system is in itself evidence of the parents' ability to correct the malnutrition.

The second method is one which is often applicable and the one which it is most desirable to use. There are many kinds of persuasion which each mother adapts to the desires and need of an individual child. Some children eat because their parent urges them to keep pace with him, some to eat a bite for himself and one for his favorite doll or some fictitious Mother Goose character, some because at the bottom of the dish or glass is a picture surprise. Such adaptations are as numerous as the children and are especially to be recommended.

The third method is often combined with the second, but is open to the criticism that a child who is constantly rewarded for eating learns to expect that such rewards should accrue from other activities which he may dislike to perform and stimulate negativistic tendencies which are present in varying degree in nearly all children. If a new reward is arranged for each effort this criticism does not apply as aptly as if the same reward is offered each time because the monotony of the reward distracts the interest. It is variety which promotes renewed activity in chidlren.

The fourth method is very successful if carried out with firmness and decision by the parent. Thus, for instance, in order to make a

stubborn child eat cereal after he has failed to respond to all persuasive and reward methods, a parent may offer cereal only for each meal until hunger induces him to eat. After passing through such a starvation period most children offer no objection to the eating of that particular food in the future. Such a method, experience leads me to believe, is extremely efficient in disciplining the stubborn child.

Calvin Coolidge has recently said: "In these days, children get about what they ask for, not what the wise judgment of their parents should dictate." This is applicable to the consideration of malnutrition. There is an idea prevalent that children should not be made to eat the things that they do not wish to eat. This idea is not confined to the parents alone, but is also shared by the profession. It is useless to begin such a program as outlined above unless this idea can be corrected in the minds of the parents and physicians. It must be assumed at the beginning of such a program that it is to be carried out to the letter. However, it must be recognized that making a child eat who does not wish to eat is not an easy task. Milk can sometimes be fed through a straw when they refuse to take it any other way. The drinking of milk in the company of other children, as in school, or in groups, will often accomplish that which could not be accomplished at home. Quite often it is necessary to remove a child from its home and place it in an institution, where proper discipline can be established. I should like to add that of all the factors concerned in malnutrition, with the possible exception of the correction of physical defects, there are none that accomplish such splendid results as the institution of a firm, proper, daily discipline which is carried out to the least detail.

It is common practice to advocate milk in large quantities for the correction of malnutrition, but I should like to correct the impression that milk is a panacea for malnutrition. Milk is a good food. There is nothing that can be substituted in its palce. It is not a substitute for rational hygiene.

Summer camps may be used to a very good advantage for the purpose of bringing children up to weight. Satisfactory gains can be secured if there is intelligent nutritional control, and a definite hygienic program.

Let the physician rest assured that if he will institute a program such as outlined, and make an effort to carry it out to its completion, he will be gratified to find not only an increase in weight, but likewise a correction of many nervous symptoms, an increased resistance to disease, and as a result of having to be disciplined, a better appreciation on the part of the child of his social relationships.

SURGICAL ADVANCES DEVELOPED DURING THE WAR APPLICABLE TO INDUSTRIAL SURGERY

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After an exhaustive review of the literature pertaining to the treatment of wounds during the World War, three things have been recorded as of preeminent value, and may be justly classified as surgical advances developed during the war.

The first, and probably the most important, is the proper surgical cleansing of wounds, a procedure termed by the French "debridement." Second, may be mentioned the mobile treatment of joint infections; while the third is the demonstration of the value of the prophylactic administration of antitetanic serum.

If proper use is made of the knowledge gained by members of the medical profession during the Great War, humanity of the future will have gained something of value from the sacrifice, inasmuch as the facts learned are applicable to injuries sustained in civil life as well as in warfare.

DEBRIDEMENT

First let us consider "debridement."

At the outbreak of the World War very definite ideas were held concerning the functions of the medical service, and there were strict regulations as to the proper method of treating wounds.

These teachings were the result of an intensive study of war surgery, based upon the experience derived from former wars. Special stress had been accorded the knowledge gained through a study of wounds in the Russo-Japanese War, and also in the Balkan War.

The conclusions arrived at, following the Russo-Japanese War, seemed to have proved quite conclusively that the treatment of the wounded in the zone of activity should be conservative in every detail.

Observations gathered in the Balkan War seemed to confirm this belief, and, as a consequence, the medical services of all the great armies of the world were so organized as to carry out this principle.

One of the most exhaustive works published dealing with the subject of military surgery was that of Octave Laurent[1] of Brussels, Belgium. His observations were gathered through an experience of eleven months service with troops during the Balkan War, and he called special attention to the lack of serious consequences following wounds caused by bullets shot from the modern high-velocity rifle. He also stated that artillery fire was more deadly than infantry

fire, inasmuch as the artillery was responsible for more than one-half of the deaths, but less than one-fiftieth of the total number of wounded.

Shortly after the commencement of the World War, Edmond Dolorme[2], at that time inspector-general in the French Military Health Service, presented a paper before the Academie des Sciences in which he emphasized the fact that wounds from rifle bullets were usually cured within a few days or weeks, and, at the same time, advocated conservative treatment of wounds resulting from shrapnel balls. He believed that fractures should be handled conservatively, and that laparotomy in abdominal wounds was inadvisable in military surgery. He called attention to the fact that in the Transvaal War, laparotomy in abdominal wounds gave fewer recoveries than were recorded following nonoperative treatment. He also stated that the German bullet made but a small orifice when entering the abdomen, and that the perforations in the intestines were so small that they tended to close spontaneously. Absolute rest and complete abstinence from food and drink for several days, he considered the treatment of choice.

That the surgeons of the German army held similar beliefs concerning the care of the wounded in forward areas, was shown by the literature appearing in German medical journals at the same time.

The "Berlin Letter" of August 22nd, 1914, published in the *Journal of the American Medical Association,* stated that because of the specially favorable conditions of transportation, no effort would be made to treat the wounded in the field hospitals, but that it was best to convey them by train to their homes, where better care could be given.

Thus it can be seen that the universal consensus of opinion at the outbreak of the World War, as well as for some time thereafter, was that the wounds caused by modern small arms were usually non-infected, and that unless severe damage had been done to some vital organ, all treatment should be expectant.

Proper chemical sterilization of the skin area around the point of entrance of the projectile, as well as around the point of exit, when one was present, followed by the immediate application of sterile dressings, were thought sufficient to prevent infection and promote rapid recovery, in the majority of cases. Usually the area around the wound was painted with a solution of the tincture of iodine, and then a dressing applied, this being deemed sufficient, except in the cases complicated by fracture, where some form of splint was required.

The "Berlin Letter" published in the *Journal of the American Medical Association,* stated that wounds received in the regular course of war showed a good tendency toward healing, while Posnett[3] expressed the viewpoint of British surgeons by stating that bullets may pass through vital tissues without permanent injury, and advocated extreme conservatism in operative treatment

Again, the Berliner Medizinische Wochenschrift of September 14, 1914, commented upon the mild character of war wounds when vital organs were not involved, while Schwieninz[4], in a discussion of wounds in the different wars since 1850, gave statistics showing the mortality during the Crimean War, the Franco-Prussian War, and others, including the Russian-Japanese War, in which he demonstrated the lowering of the percentage of the wounded who died from their wounds. This was given as 24.9 per cent amongst the French wounded during the Crimean War; 11.1 per cent amongst the German wounded in the Franco-Prussion War, and 6.8 per cent amongst the Japanese wounded and 3.2 per cent amongst Russian wounded during the Russian-Japanese War.

That the expectant method of treatment was not to prove sufficient, was almost immediately made manifest, for in October, 1914, the British Government ordered six thousand packages of tetanus antitoxin from various American pharmaceutical companies[5] for use by the French and English troops exposed in the trenches.

Again, Dolorme, in a paper presented before the Academie des Sciences, September 28th, 1914, stated that the siege type of warfare then practiced demanded modifications of the earlier ideas of military surgery. He called attention to the badly infected conditions of many wounds, especially in cases where the wounded had lain in the trenches without care, sometimes as long as four or five days. It was his belief at this time that surgery must be performed at the front, and that while bullet wounds usually healed quickly, without special care, wounds resulting from artillery fire, which were large and contained much foreign matter, such as shell fragments, earth and bits of clothing, often resulted in diffuse phlegmons, gangrene and tetanus. Dolorme also stated that it was necessary to operate rapidly, to remove shell fragments and foreign substances, and thereafter to disinfect the wound carefully. He called attention to the fact that the greater number of deaths among the wounded at that time were due to tetanus and gaseous gangrene, which were almost unknown complications in civil surgery, and had been very rare at the beginning of the war.

Dolorme advocated the injection of hydrogen peroxide in the treatment of gas gangrene. These injections were made about a centimeter

apart, around the infected area or, in the case of a limb, around the same, from forty to one hundred cubic centimeters of peroxide being used.

He also advocated the distribution of antitetanic serum in the first line ambulances, so that it could be given to the wounded as early as possible.

Such beliefs were decidedly radical, when one considers the teachings then in vogue, and yet subsequent events have proven the farsightedness of Dolorme.

A month later, Alexis Carrel[6], in summing up his experience with wounds of war, stated that the majority of wounds were not serious. This was probably due to the fact that at that time he was attending wounded who had participated in the fighting at that part of the country known as Haute Alsace, which is, comparatively, almost virgin soil, when compared to the intensively fertilized districts in Belgium and the west of France. Such observations as these showed the extremely important part that the soil, over which and in which war is waged, plays as a point of primary consideration in the management of the wounded.

The "London Letter"[7] to the *Journal of the American Medical Association* of October 16, 1914, stated that the condition of the wounded returning to England was most satisfactory, and that suppuration had occurred in less than 10 per cent of the wounded. In contradistinction to this, the "Paris Letter" of October 8, 1914, stated that most of the wounds were infected. From Germany[7] came the report, at about the same time, that fully 85 per cent of shrapnel wounds became infected.

However, many prominent surgeons still clung to the belief that wounds of war should be tampered with as little as possible, as was illustrated by the address of Picque before the Academie de Medicine of Paris, October 13, 1914, in which he strongly advocated conservative methods in the handling of wounds. At the same meeting, Tuffier stated that non-lacerating gunshot wounds healed with a single dressing, but that shrapnel wounds and fractures were serious because frequently infected. He further stated that thoracic wounds, even when they traversed the thorax, healed without trouble, while abdominal wounds should be kept quiet until they could be cared for in a fully equipped hospital. Tuffier, at this time, advocated the administration of antitetanic serum upon the battle field as a preventative against this serious complication He mentioned the necessity of the scrupulous cleansing of wounds, and the establishment of sufficient drainage. He also recommended the use of hydrogen peroxide in cases of gaseous gangrene and acute septicemia.

About the same time, Heyman[8], speaking of wounds observed by German surgeons, greatly praised the German first aid package, stating that almost without exception wounds were in excellent condition, and that even jagged shrapnel wounds healed rapidly. He advised the removal of scraps of cloth, hairs, slivers of wood or scraps of metal by means of tweezers, and further stated that bone splinters had best be left in situ. Heyman, evidently, was still an ardent advocate of the principles taught at the beginning of the war, and in the light of subsequent knowledge, one must be forced to believe that his statements were possibly guided to some extent by a desire to assure his own countrymen that everything possible was being done for the wounded, since infection must have been rampant at that time.

In an address before the Societe de Chiurgie de Paris during the month of October, 1914, Paul Roche stated that a sharp distinction must be drawn between bullet wounds, which might be termed the only aseptic form, and wounds caused by shrapnel and shell. In wounds of the latter class, abstention from operation was not conservation, since, because of the danger of gas gangrene, operation should be performed.

Amongst other French surgeons, all advocates of prompt and early operation, are the names of Rochard, Riche and Touissaaint. Their methods differed slightly, but the principle of early operation to establish drainage in infected cases was urged by all.

The "London Letter" of November 6, 1914, published in the *Journal of the American Medical Association,* November 28, 1914, stated that most of the wounds received in the war were slight, and that recovery took place rapidly, yet that some were of great severity and attended by complications, of which tetanus and emphysematous gangrene were the most important. It was stated further, that the bacteriological conditions were peculiar and novel to their bacteriologists, who were working at the front in northern France. In England, wound infection was almost exclusively due to staphylococci and streptococci, while in France the infecting organisms were usually of the anaeorbic variety, such as the bacillus of tetanus, the bacillus aeorgenes capsulatus, and the bacillus of malignant oedema. This was attributed to the fact that the soil of the locality in which the fighting occurred had been thoroughly manured for many years.

That English opinion was not united at this time, however, was shown by the remarks of D'Arcy Power[9], who stated that meddlesome surgery was usually bad surgery; wounds should not be probed, drained and packed; but that, tempered with discretion, it was better to

wait than to operate, unless the patient was losing ground

French surgeons, however, were almost unanimous, even at this time, that the methods of caring for the wounded, so definitely stated at the outbreak of the war, must be radically altered. Thus, Quenu[10], in an address before the Societe de Chirurgie de Paris, October 21, 1914, stated that free opening of the wound and scrupulous disinfection of the cavities with removal of foreign bodies and loosened bone fragments, were essential in the treatment of gaseous gangrene. He further advocated that where gangrene extended into the depths of muscular masses, hot air raised to 500 or 600 degrees centigrade, should be brought into contact with the gangrenous parts, by blowing the superheated air through a tube, thus drying and mummifying the gangrenous surface.

That gaseous gangrene was now becoming the great problem in the treatment of war wounds was shown by the writings of many surgeons, and by the many and varied methods recommended to combat this infection.

Vincent[11], recommended the dusting of fresh chlorinated lime, mixed with ten parts of pulverized boric acid, over the surface of gangrenous wounds. Hoguet[12] stated that, contrary to previous experience, all wounds, both rifle and shrapnel, were liable tto become infected. This was attributed to the soiled condition of the soldiers' clothing, and the inability of the soldier to keep clean. He further mentioned the frequency of gas gangrene as a complication, particularly in wounds caused by shrapnel.

That English surgeons were quick to follow the lead of the French, was shown by the "London Letter" of the *Journal of the American Medical Association,* written November 27, 1914, and published December 19, 1914 Here it was stated that the uniformly septic conditions of the wounds as they came under treatment in the hospitals, had proven the failure of the modern aseptic treatment and thus had caused a proposal to revert to the old antiseptic methods. Further, that the importance of immediate disinfection of wounds was recognized, and that thus following the example of the French, a small quantity of iodine was being supplied to each man, which was to be used as soon as the wound was inflicted. How logical and sound were the reasons for a change in the method of treatment, and yet how futile and ridiculous the method advocated!

Cheyne[13], a British surgeon, stated that practically all wounds in the last war became septic because there was often a long, unavoidable delay in collecting the wounded, as well as because of the fact that many of the wounds were of large size, and so complicated that thorough disinfection was almost impossible. He stated his preference towards phenol as a disinfectant, rather than iodine.

Bowlby and Rowland[14], in discussing gas gangrene, recommended that tight bandages should be avoided. They also recommended that all blankets and clothing soaked with the discharge from cases infected with the gas bacillus, should be destroyed, since the group of anaerobic bacteria causing gangrene were always spore bearing organisms. They further recommended the boiling of all instruments used in such cases, for at least one hour, in a solution of lysol, one part of lysol to twenty parts of water.

It can thus be seen that the fear of gas gangrene was uppermost in the minds of those attending the wounded in both French and British Armies, within five months after the opening of hostilities, and a superficial review of some of the methods advocated to combat this complication is of extreme interest.

Thus, Pauchet and Sourdat[15] urged the use of gauze impregnated with paraformaldehyde as a dressing with sufficient germicidal powers to combat infection

Hartman advocated at this time the liberal opening of wounds, to prevent gas gangrene, and urged immediate amputation in cases in which a limb was infected, as was shown by swelling throughout its thickness. He also recommended the opening up of the course of the projectile, and the removal of all foreign bodies, followed by the establishment of drainage from end to end of the wound, and its subsequent irrigation with hydrogen peroxide.

Cazin[16], at the same time, stated that in a group of 158 wounded men surgically treated at the hospital, less than 48 hours after receiving their wounds, all were cured, while among the wounded received in hospitals after four or five days of transportation in sanitary trains, the mortality was as high as 10 to 20 per cent, as a result of such complications as gas gangrene and tetanus. Here, then, was a definite statement as to the importance of the time element before the proper surgical treatment was instituted.

That German surgeons[17] were encountering the same difficulties as were being met with by surgeons of the Allied armies, was shown by the "Berlin Letter" of December 8, 1914, published in the *Journal of the American Medical Association,* January 16, 1915. It was here stated that while the results of the treatment of the wounded in general were particularly favorable, yet tetanus and gas phlegmons had been observed as wound infections, with apparently greater frequency than formerly.

That the time had not yet arrived for a radical departure from previous beliefs, was shown by the instructions prepared by Chavasse[18] for

the physicians serving with the French army. Chevasse, as chief of the army medical department, stated that every wound and its vicinity should be painted with a 1 per cent solution of iodine. He next stated that because a dressing smelled bad was no reason for changing it, since it could be deodorized by means of a weak solution of chlorinated soda. He recognized the prevalence of infection by stating that wounds of war should never be sutured, but that the edges of large wounds might be approximated by the use of straps of adhesive plaster or clips. He advocated the cleansing of jagged wounds and the removal of foreign substances, after which they should be coated with hydrogen dioxide and then painted throughout with the tincture of iodine. He further stated that the blowing of pure oxygen into a wound was of importance in the prevention of gas gangrene.

The above being in substance a portion of a manual of instructions to the French army surgeons, was a partial acknowledgment that the methods of wound treatment advocated at the beginning of the World War were not proving out.

The first description of what later became standard as the correct surgical cleansing of war wounds, was published by an Englishman. In a careful search through the literature, Wildey[19], as early as December 19, 1914, was the first to state that a "thorough skin toilet," which he described as "the paring of every particle of soiled and badly damaged tissue which was followed by the swilling of the wound with a 2 per cent solution of iodine in alcohol, and afterwards with saline, after which the wound was closed by piling up the skin edges with mattress sutures, to insure complete coaptation and the avoidance of artificial drainage."

Thus, Wildey was the first to recommend the above as the proper treatment of war wounds. The only important thing lacking in his description is the time interval between the receiving of the wound, and the giving of surgical aid. Since the latter is the matter of chief importance in the treatment which the French termed "debridement," we cannot give Wildey credit as being its first advocate, but must conclude that the ultimate result was the combined work of many investigators.

That the most important factor in the consideration of war wounds was the infecting organism, was mentioned in an editorial in the *Journal of the American Medical Association* of January 30, 1915, entitled "Bacteriology of War Wounds." That this is the most important factor, is well recognized. Thus, we may have infections with staphylococci, streptococci or the more serious gas-producing group. However, it is always well to bear in mind another factor, of almost equal importance, is the capability of the person in whom the infection has been introduced of forming antibodies to combat the growth of the organism causing the infection. Thus, in one individual a gas bacillus is of serious moment, while in another the introduction of the same organisms would produce a much less serious condition because of the ability of the second individual to more rapidly produce immune bodies to destroy the infecting organism. Thus the introduction of a microorganism into a wound, is, in and of itself, not always followed by disastrous results.

First, we must consider the variety of organisms; second, the immunity possessed by the individual into whom it has been introduced; third, the number introduced; and fourth, the amount of dead tissue present in the immediate neighborhood of the tract of the wound. The last is of especial importance, when the infecting organisms of the anaerobic variety, as will be well shown by subsequent events.

That the German surgeons were having infections caused by anaerobic bacteria at this time, was shown in an article by Busch[20], in which he describes the cure of a case of gas phlegmon by means of its complete extirpation surgically. He advocated always cutting into sound tissue and estimated the area involved by the difference in sound made by scraping a razor over the region.

About the same time, Heiser[21] published an article in which he recommended the playing of a jet of air on any wound that appeared liable to develope tetanus.

Hartman[22], in an article published in the Review Scientific, made mention of the fact that experience had shown that the early teachings as to the care of wounds had proven entirely fallacious. He stated that wounds caused by shell fragments were the most numerous, and that such were almost invariably infected, as well as that, in contradistinction to the views of others, wounds caused by bullets were also apt to be severe in character and were frequently infected.

He advocated the free opening of all infected wounds and the removal of foreign bodies and loose fragments of bone.

Lawson and Whitehouse[23], surgeons of the British army, advocated the injection of neutral hydrogen peroxide above the infected area in cases of emphysematous gangrene. The injections were made into the subcutaneous tissue, and, in the case of an extremity, a complete belt was made around the same They also advised that the injections be made into the gangrenous area combined with thorough opening and cleansing of the wound, which in-

cluded the removal of dead tissue and foreign material.

At about the same time, Tuffier[24] called attention to the prevalence of infection and the necessity of drainage of infected wounds at their most dependent angle.

Many and varied were the methods suggested to combat the ravages of wound infection which was almost universally present at this stage of the war. In addition to those mentioned already, a brief allusion to others recommended will be of at least historical importance.

Thus, Menciere[25] published an article in February, 1915, in which he advocated a process that he termed the embalmment of septic wounds. This consisted in washing the wound during a period extending over three or four days with three different antiseptic solutions: First, mercuric chloride, 1 to 1000; next, phenol, 1 to 40; and lastly, hydrogen peroxide, 1 to 3. After this, gauze soaked in a solution composed of iodiform 10 grams, guaiscol 10 grams, eucalyptol 10 grams, balsam of Peru 30 grams, and ether 10 grams was packed into the opened wound. Evidently the author believed in the efficacy of antiseptics and desired to make use of as many as possible.

In January, 1915, Quenu[26] stated that the complete opening of a wound was the main factor in preventing and treating gas gangrene. He also recommended the burning of the tissue around the wound with air, heated to 700 to 800 degrees centigrade, as a method of treatment. This, indeed, was a method that might be termed cautery debridement, except for the fact that it was not instituted until after infection was well established.

On the German side, Peterman and Hanchen[27], during January, 1915, issued a report of their experience with over twelve hundred wounded. This experience, they stated, had changed their viewpoint from conservatism to more radical operative treatment.

In March, 1915, Marquis[28] reported his results in 65 severe injuries of the extremities. These injuries were all so severe that amputation had to be considered. The treatment adopted, however, consisted in debridement, disinfection, drainage, and the removal of foreign bodies and sequestra . Amongst the 65 cases eight died from complicating lesions, and five from their wounds, without amputation. Two died from tetanus. While no definite conclusions were drawn, it would seem that his results proved that amputation could be prevented by proper and early wound cleansing.

In April, 1916, Mills[29] reported that 63 per cent of bullet wounds were infected, and 85 per cent of the wounds caused by shrapnel, amongst the wounded soldiers on the Russian front. He further stated that the practice in Budinger's clinic at Vienna was to amputate where an extremity was involved, in cases of tetanus, gas bacillus infection, or torsion necrosis of a fractured leg, as well as for septic knee joints. Thus, we can see that where serious infection had once developed, the practice in one Austrian clinic at least had become decidedly radical.

In March, 1915, Proust[30], in summing up his experiences of six months of war surgery, was insistent upon the necessity of widely opening wounds within a few hours after injury, with subsequent drying and draining to prevent gas gangrene.

In April, 1915, Morestin[31] advised the use of a solution of formaldehyde mixed in equal parts with alcohol and glycerine as an application for the treatment of septic wounds and gaseous gangrene.

At the same time, Dionis du Lejour[31] gave great praise to Wright's treatment with hypertonic saline solution. He also reported making use of a solution of liquid glucose which contained sufficient carbolic acid to make a strength of 1 to 80. He advised the removal of foreign bodies wherever possible, as well as the excision of necrotic and contused tissues, together with wide wound opening, so as to obtain adequate drainage, after which the carbolized glucose solution was applied

That the British were at this time becoming advocates of early operation in certain classes of injury at least, was shown by the "London Letter" of July 2, 1915, published in the *Journal of the American Medical Association*, dated July 17, 1915. Here it was stated that they had established nine operating theatres in connection with their casualty clearing stations, which were situated at distances of from five to seven miles behind the front. Special attention was given to wounds of the head and abdomen at these stations .

That some German surgeons were also becoming advocates of early operation, was shown by an article written by Axhausen[33] in May, 1915, in which he stated that where wounds showed much destruction of tissue, the excision of dead and dying tissue was indicated. He suggested the removal of tissue until a good bleeding surface was obtained throughout the wound, after which it was drained and the limb immobilized. He stated that no case so treated had in his experience developed tetanus, gas gangrene, or progressive pyogenic infection.

Amongst German surgeons at this time, Ranze[34] deplored the primary suture of any war wound, while Schmidt[35] reported 28 cases of gas gangrene and from these concluded that immediate amputation was the proper method

of procedure where gas gangrene of an extremity was present.

In July, 1915, Dremau[36] advocated the use of a 5 per cent solution of benzoate of soda for the irrigation of wounds, as well as its application as a wet dressing, together with the establishment of free drainage by means of multiple incisions, and the use of large, soft-rubber tubes.

From the British came a very excellent description of wound excision, in June, 1915, when Mullinan[37] stated that devitalized tissues should be extirpated He advised cutting out the wound of the skin with a sharp scalpel, and then trimming away damaged tissue, so that a clean incised wound replaced the infected and lacerated wound made by the projectile. The tissue excision applied to fascia and muscle as well as to skin, and he further stated that all foreign substances should be removed.

Osler[38], in a comprehensive review of wounds and disease in war about this time, stated that of 153,980 wounded, 60 per cent had returned to duty. He further stated that more suppurating wounds had been seen by British surgeons during the first 10 months of the war than had occurred in the 40 years since Lister's teachings had become general. He stated that the character of shell and shrapnel wounds favored infection, since germs were carried far into the tissues and suppuration was inevitable. He made mention of the fact that, in trench warfare, the uniforms of the men were caked with mud, which, in highly cultivated districts, invariably contained dangerous microorganisms, so that even the slightest wound resulted in infection.

W. Munch, a German surgeon, in June, 1915, published an article in which he advocated bathing wounds in a warm aqueous solution of chlorinated lime, for a period of 20 minutes each day.

In the "Paris Letter" of August 15, 1915, Gray called attention to the beneficial results observed by some of the English surgeons when a Ringer-Locke solution was used as a moist dressing. Other surgeons advocated sea-water, and Wallish advised a dressing of moist normal saline

The "London Letter" of August 13, 1915, to the *Journal of the American Medical Association* dated September 4, 1915, spoke of a controversy between Sir Watson Cheyne and Sir Almoth Wright, in which the former advised the use of strong antiseptics for the disinfection of wounds, while the latter urged that a 5 per cent solution of common salt combined with a five-tenths per cent solution of sodium citrate was the best possible dressing, inasmuch as it caused an outflow of lymph, and rendered the discharge incoagulable.

About this time Landousy presented before the Academy of Sciences in Paris, a report of the work of Alexis Carrel and H. Dakin, in which a solution of chlorinated lime, to which boric acid and calcium carbonate had been added, was used in the treatment of infected wounds.

A claim of priority for this method of treatment was brought forward for Lorrain Smith, of the University of Edinburg, stating that he had recommended the use of a similar solution some five months previously. However that may be, the work was probably an independent research by both, since the antiseptic value of chlorinated lime had long been recommended and used in different forms, but the particular method recommended by Carrel and Dakin, after slight modifications ,came intto extensive use, and was subsequently known as the Carrel-Dakin method of treatment.

Fackenheim[40], serving with the German army, advised the application of sugar to extensive suppurating wounds, and stated that infected wounds so treated cleared up with great rapidity; while Hahn[40], also a German surgeon, advised the packing of wounds with gauze which had been dipped in a solution composed of one part alcohol and two parts hydrogen peroxide, the dressing being kept moistened with the same solution.

In August, 1915, Gray[41], of the British army, stated that healing by first intention was assured in the vast majority of properly selected cases where excision of the wound was performed. He also declared that the earlier the excision was performed the better the results would be, and thus was one of the early English consultants to advocate excision of wounds.

At the same time, a paper was published by Dakin[42], giving the method of the preparation of the solution which subsequently became so well known because of the more or less general adoption of the Carrel-Dakin method of treating infected wounds

Originally the solution was prepared by the decomposition of chlorid of lime with a solution of sodium carbonate. The filtered solution containing sodium hypochlorate, together with a slight excess of alkali, was next mixed with boric acid in sufficient quantity so that the resulting solution was acid when tested with phenolphthalein suspended in water, but still alkaline to litmus. He claimed that the resultant solution contained a balanced mixture of hypochlorite and polyborates of sodium, with small amounts of free hypochlorous and boric acids.

The method recommended was that 140 grams of dry sodium carbonate, or 400 grams of crystalized salt, should be dissolved in 10 liters of water. To this, 200 grams of the chloride of lime were added. This mixture was

well shaken, and allowed to stand one-half hour. The clear fluid was then siphoned off and filtered through cotton. To the filtrate, 40 grams of boric acid were added. The solution was declared efficacious for one week, at the end of which time, because of lack of stability, a fresh solution would be needed.

Menciere[43] advcated what he termed the 'embalmment' of wounds. This consisted of the making of long incisions, cleansing of the gangrenous area, and the removal of bone splinters, fragments of clothing and shell. He next blocked all counter openings, after which the wound was filled with a solution composed of nine parts of pure phenol and one part of alcohol. This was left in situ from one to one and one-half minutes, after which the excess was removed with tampons, and the wound irrigated with three to four liters of strong alcohol. Afterwards, the embalming process was carried out by the introduction of from 150 to 200 grams of a solution composed of one liter of ether, 10 grams each of lodoform, guaiacol, and eucalyptol, 30 grams of balsam of Peru, and 100 cubic centimeters of 90 per cent alcohol.

In September, 1915, Tuffier[44] stated that wound infection could be stopped at the beginning, but that if allowed a few hours in which to develop, it soon got beyond control. He advocated the early application of the Carrel-Dakin technic

In October, 1916, Carrel and Dakin[45] published an article upon the use of sodium hypochlorite in the treatment of wounds, in which they stated that by their method infected wounds could be completely sterilized, after which they could be closed up like an aseptic wound.

Pinard[46] at this time urged the application of Delbet's method, which consisted in irrigating infected wounds with a 12.1 per thousand solution of anhydrous magnesium chloride. He was of the opinion that this procedure tended to clear up the infection with more rapidity than other methods did.

In January, 1918, Gray[47] stated that the inefficiency of antiseptics as a preventative means of disinfecting wounds, had been well demonstrated. He insisted upon the necessity of the cleansing of the wound by operation, after which it should be packed with gauze which had been soaked in a 5 to 10 per cent salt solution, while in the folds of the gauze he placed numerous tablets of salt.

In the same month, Carrel, Dehelly and Dumas[48] again wrote of the Carrel-Dakin method of sterilizing wounds with subsequent surgical closure, after bacteriological examination showed a marked diminution in the number of bacteria in smears taken from the wound.

Moyinhan[49], in March, 1915, stated that whenever possible, the excision of the wound was the ideal method. This being impossible in the majority of cases, he advocated proper cleansing of the skin by means of soap, ether or benzine, and the subsequent application of some antiseptic such as Dakin's solution, Harrington's solution or MacDonald's solution.

The "Paris Letter" of March 30, 1916, published in the *Journal of the American Medical Association* dated April 29, 1916, quoted a paper read by R. Pique, in which he reviewed the early practice of temporizing with wounds. He made mention of the disastrous results following this practice, and called attention to the fact that it had become essential to place ambulances near the front, where all facilities for proper operative treatment for the wounded were now available. Such hospitals were now equipped with radiographic apparatus and electric lights. He further stated that the necessity for immediate operation was due to the serious character of the wounds, and the possibility of subsequent infection.

Perret[50] about this time stated that the success of Carrel's method of treatment depended upon the length of time between the receiving of the wound and the application of the treatment. He further stated that not more than six hours should elapse, and that all wounds should be surgically cleansed before beginning the use of Dakin's solution.

This, indeed, was a demand for the early debridement of wounds, although it appeared simply to be a plea for the early application of the Carrel-Dakin method.

In April, 1915, Fiessinger, Cuillamuin, Moisend and Vieime[51] published a research in which eight of the antiseptics advocated for infected wounds had been utilized. This included Dakin's solution. They stated that the alkaline hypochlorite solutions had a dissolving action whereby the pus clots and red cells were promptly liquified, and that living tissue projected itself against this dissolving action because of its salt content. No definite conclusions as to the relative value of the various substance tested were drawn.

In May, 1916, Dehelly[52] reported 48 cases in which 155 wounds were noted in which early closure of the wounds was attempted after they had been treated by the Carrel-Dakin method. He stated that this procedure had shortened the time of healing by approximately two-thirds the normal time, and that the application of this treatment had provided a more supple wound than would have been the case if secondary suture by the Carrel-Dakin method had not been attempted.

May 4, 1916, Dehelly and Dumas[53] described the Carrel-Dakin technic in which multiple perforated, small rubber tubes were employed, the tubes being about 25 centimeters long and ligated at the lower end. These were connected with a glass flask which held about one liter of Dakin's solution. Gauze was next sewed around the perforated end of the tubes, and such a number as was required to keep the entire wound surface bathed with the Dakin's solution were placed within the wound. Depending upon the size of the wound, from five to twenty drops per minute of the solution were permitted to enter the tubes. The skin around the wound was protected with vaseline, so as to prevent burning by the solution, and daily bacteriological examination and counts were made of the discharge. When the bacteria had disappeared, the wound edges were coaptated by means of long strips of adhesive plaster.

In February, 1915, Fiolle[54] urged the building of bomb-proof operating rooms, connected with the trenches, so that immediate surgery would be furnished the wounded, thus proving that amongst the French surgeons, the belief that the success or failure of debridement as a means of preventing infection depended chiefly upon the time element.

In June, 1916, Anderson, Chambers and Lacey[55] stated that their experience had forced them to conclude that the bacteriacidal action of many so-called antiseptics was negligible, and that the majority of wounds healed under proper dressing and drainage without the use of any antiseptics. They then stated that they used a saturated solution of salicylate acid in alcohol, two or three drams of which were added to a pint of saline and the wound flushed with the same.

Barbarin[56] wrote at this time upon the necessity of draining wounds at the lowest point. He advocated the placing of a loose gauze bag filled with agar within the wound, a drainage tube having previously been inserted to the lowest point The agar was next wet with Dakin's solution or some other disinfectant, thus causing it to swell and distend the wound, thereby, as he stated, bringing the solution to all parts.

In August, 1916, Leroy[57] described the treatment of war wounds by what he called Lemaitre's method. This consisted in the thorough exploration of the tract of the projectile, removal of all foreign bodies, and excision of contused and lacerated tissues, after which the surface of the wound was painted with a solution of tincture of iodine. This was followed by primary suture in selected cases which could be observed; otherwise, the wound was left open to be sutured secondarily, some days later. He stated that the earlier treatment was instituted, the better the results obtained, and that the appearance of pus or fever was a proof of defective operative technic.

In July, 1916, Lemaitre[58] gave an account of the various beliefs held by him at different stages since the beginning of the war. At first he was in the habit of resting on the expective and intervening only after the phenomena of infection had become manifest. During this stage, the results were bad.

During the second phase, having come to the conclusion that all war wounds should be treated as already infected, he practiced early operation, making wide and free openings. His results were better, he stated, but suppuration invariably appeared after a few days or weeks, which was followed by considerable loss of tissue from sloughing

In the third place, in order to avoid the sloughing and suppuration, he resected all the necrosed parts and systematically explored the wound for projectiles. He used the blackening along the track of the bullet as a guide. This new procedure was again marked by improvement, but the wound tended to remain of a grayish color, and there was usually considerable discharge for at least a week.

In the fourth phase, he acted upon the supposition that during the course of his exploration of the wound, he was innoculating one part from another by means of his instruments. For this reason he completely dried the wound after surgical cleansing, and then treated it with the tincture of iodine, so as to destroy the germs implanted upon the surface. The results after this additional step were very much better, there being no suppuration or fever, and the wounds granulated rapidly and possessed a healthy appearance. He stated that according to his expecience, Carrel's method gave inferior results to that which he described. Next, he practiced what he termed early incomplete suture, accompanied by drainage from the most dependent part.

Rocher[58] at the same time writes of the necessity of the removal of foreign bodies as well as of all necrosed tissues. He advocated secondary suture rather than primary.

In August, 1916, Roberts and Statham[59], British surgeons, advocated free excision of the wound, together with all lacerated and infected tissue, after which the wound was packed with gauze filled with tablets of sodium chloride. They stated that frequently secondary suture could be performed within ten days after this treatment was instituted.

The "Paris Letter" of September 7, 1916, published in the *Journal of the American Medical Association* of October 7, 1916, made mention of the work of Depage of the Belgian

army. He and his associates believed that secondary suture of infected war wounds should be governed by the bacteriological count. He divided wound infection into three periods: First, the period of acute infection, during which microbes are numerous in a direct smear taken from the exudate; second, a period of what he termed "attenuated infection," during which the bacterial count is less; and third, an aseptic period, at which time secondary suture can be performed. He stated that two or three favorable examinations should be obtained before suture should be attempted.

At the same time, Delbert[60] stated that he had attempted to ascertain the value of Dakin's solution when applied to fresh wounds. His conclusion was that this was a very unsatisfactory method of procedure, and that simple mechanical cleansing of the wound by excision of the orifices and as large an amount of the entire tract as was possible, followed by immediate reunion, usually resulted in healing by first intention, without the aid of any antiseptic.

Schwartz[61], with the French, at this time also wrote of the necessity for the proper surgical cleansing of wounds at the first possible moment. He believed in providing for ample drainage, however.

Gaudier and Montaz[62] recommended immediate suture of wounds after proper removal of all damaged tissue, provided the patient reached the surgeon early and could be kept under observation for the first few days. They urged extensive excision when such could be done within 24 hours after injury, and further stated that the best results were obtained when operation was performed within six hours.

Desjardines[63], in January, 1915, stated that Gray (British) favored the complete excision and immediate suture of wounds at that time. He also reported that he had grouped patients in series of ten and treated those in each series with a different antiseptic solution, such as Dakin's, Wright's hypertonic saline, iodine solutions of different strengths, acetic acid solutions and a solution of sodium bicarbonate. While undergoing such treatment, all wounds were cultured bi-weekly. He reported no difference in the power of the various antiseptics used to shorten the length of time of the infection.

About the same time, Lyle[64] wrote that the future course of a wound was dependent upon the thoroughness of the first surgical act. He insisted upon a thorough mechanical disinfection of the wound, which included the extraction of all shell fragments, particles of dirt, clothing, etc, before instituting the Carrel-Dakin method.

Amongst experimental reports regarding wound infection, the work of Taylor[65] should be mentioned. He conducted experiments with the idea of determining the relative importance of dead tissue and foreign body in the severity of infection in wounds. His conclusions, after planting wounds with sterile foreign bodies, and others contaminated with various aerobic and anaerobic baceria, and still others so contaminated, together with small pieces of dead muscle tissue, were that, where dead muscle tissue was present, the resulting infection was invariably more acute. From his work he decided that great care should be exercised in the removal of dead tissues, as well as of foreign bodies.

That some surgeons were still placing confidence in the value of antiseptics, however, was shown by numerous writings. Thus, Feldman and Walton[66] recommended the opening of wounds, the removal of foreign bodies, and their subsequent filling with a solution prepared by rubbing together equal parts by weight of camphor and pure phenol.

Browning, Kennaway, Thornton and Bulbransen[67] at this time reported their experience with the use of the dyes flavine and brilliant green in the treatment of infected wounds. They suggested that such wounds be irrigated with a one to one-thousandth solution of flavine in normal salt solution. They believed that the bacteriacidal powers of this preparation were better than those of any of the other antiseptics recommended and that it was also less injurious to human tissues.

From the German side Hirschberg[68] about this time published a report upon his experiences with the use of Dakin's solution. He was much in favor of the Carrel-Dakin method.

Cheynon[69] of the French army wrote in February, 1917, of the value of spraying the entire surface of the wound, after proper surgical debridement, with a solution composed of 10 grams each of iodiform, guaiacol, eucalyptol and Peruvian balsam, to which was added 100 grams of alcohol, and sufficient ether to make 1,000 grams.

With regard to the time of operation after injury, Lalosque[70] stated that it was best to allow the severely wounded to rest before operation, and during this interval he treated the wound with Menciere's balsam, the patient receiving hypodermoclysis of normal saline, and stimulants as indicated. He stated that after five or ten hours, their condition might improve sufficiently so that operation could be more safely undertaken.

Concerning the differentiation between shock and hemorrhage in the seriously wounded, Gouvaerts[71] stated that after a serious wound both the red and white cell counts were high. If, within six hours after the wound had been received, the red count had dropped to four

million or lower, while the white count had increased to thirty thousand or more, it was an indication of serious hemorrhage, and demanded immediate attention as well as the transfusion of blood.

In April, 1917, Pisano[72] reported 3,171 wounded who had received the earliest possible surgical treatment. This included 172 very severely wounded, and the mortality recorded was less than 3 per cent.

Tavermier[73], early in 1917, wrote of his experience with what he termed early secondary suture in war wounds. He advocated the surgical cleansing of all wounds, which included the cutting away of all bruised tissue and the removal of all loose splinters of bone, together with the making of a drainage opening at the lowest point. After one day, if the wound appeared healthy, and the patient's condition did not indicate the onset of infection, the wound was sutured. He reported 79 cases in which only one severe infection developed following this procedure.

Chalier[74] stated at this time that he had discontinued the use of antiseptics in war wounds. He believed in operating before infection had had time to develop, the wound being cleansed surgically, and immediately sutured in layers. He stated, however, that the patient must be under constant observation so that the wound could be opened in case infection developed.

Policard and Desplas[75] emphasized the fact that early surgical treatment was of primary importance in the proper care of war wounds, while Bonnet[76] stated that whenever it was possible to operate within the first few hours after injury, healing by first intention usually resulted. He referred in his report to seven cases so treated, which were complicated by fracture of bone.

Marquis[77] also stated that surgical intervention should be applied at the earliest possible moment, but that primary suture should not be performed unless the patient could be kept under surveillance. He recommended secondary suture between the sixth and fifteenth days.

In July, 1917, Dakin, Lee, Sweet, Hendrix and LeConte[78] published a report upon the use of dichloramine T in the treatment of infected wounds. Dichloramine T (toluene-parasulphondichlororbmin) was prepared by shaking 350 grams of chlorinated lime with two liters of water for one-half hour. The mixture was then allowed to settle. The supernatant fluid was next siphoned off, and the remainder filtered. Seventy-five grams of powdered toluene-parasulphonamid were then added to the hypochlorite solution and shaken until dissolved. This was next filtered and the filtrate acidified by means of the gradual addition of 100 cubic centimeters of acetic acid. One hundred cubic centimeters of chloroform was then added to extract the dichloramin, and the whole well shaken. The chloroform layer was next separated, dried over calcium chloride, filtered and allowed to evaporate in the air. The residue was powdered and dried in vacuo. The authors expressed the hope that this product used as a paste or in an oil vehicle would prove less irritating to the skin was the original Dakin's solution, as well as of higher bacteriacidal power.

Bowlby and Wallace[79], in a general discussion of the care of the wounded, declared for early routine excision of damaged tissues, and the application of moist antiseptic dressings.

McNee and Dunn[80] believed that the rapid spread of gas gangrene was due to the peculiar anatomic structure of muscle tissue. They stated that the sheaths enclosing the long fibres were so easily detached, that spaces were formed into which toxic substances passed with ease. They further called attention to the selective invasion of single muscles in the early stages of this variety of infection.

Frankau, Drummond and Neligen[81] stated that injured muscle was always the initial focus. They advised explorations of such wounds, with a view of attempting to arrest the infection while still within the muscle. They stated that it might be necessary to resect only a portion of a single muscle or the same in its entirety. Again, portions of several muscles or several entire muscles might have to be sacrificed. Their guides as to the amount of muscle tissue that must be removed were the color of the muscle, its contractility when cut, and the presence of bleeding from the cut surface.

Sherman[82], in July, 1917, wrote extolling the Carrel-Dakin method of treating infected wounds above all others, while at about the same time, Carrel and Hartman[83] stated that chloramin T paste kept a sterile wound sterile and also sterilized an infected wound.

Chalier[84] at this time recommended complete debridement during the pre-infectious stage, followed with primary suture. He stated however, that wounds in which there was extensive tissue crushing so that recuperation was impossible, were not adaptable to this form of treatment.

Webb[85], working with the British, recommended a wet dressing of a 1 to 1000 solution of brilliant green in normal saline as a treatment for infected wounds, while Browning, Gulbransen and Thornton[86] reported upon the comparative value of acriflavine, proflavine and brilliant green as antiseptics. They concluded that the flavine preparations were of most serv-

ice as preventatives of infection when applied soon after the wound was made.

In September, 1917, Sweet[87] stated that in his experience a solution of dichloramin T in eucalyptol and paraffin oil was as satisfactory as any other means of wound disinfection.

Speed[88] in October, 1917, stated that the policy of operating as early as possible in at least 90 per cent of casualties had come to stay. He wrote also of the use of what had then become known as B.I.P.P. amongst British surgeons . B.I.P.P. was a paste composed of bismuth one part, iodoform two parts, and petrolatum one part He stated that from his experience he believed that it possessed a distinct value. His most important statement, however, was that muscle group excisions were indicated whenever gas bacillus infection asserted itself.

During the month of October, 1917, an article was published by Phillips[89] of the British Medical Service in which he gave his ideas concerning the secondary closure of infected wounds. He stated that primarily such wounds should be freely laid open and cleansed, after which the Carrel-Dakin method of treatment should be employed. During this procedure bacteriological examinations of the discharge were made every three or four days. He insisted upon two successive reports of an average of less than three bacteria per field before closure could be attempted. After this result had been obtained he stated that the wound edges should be trimmed and granulations curetted, the wound then being swabbed with alcohol, after which bismuth, iodoform, petrolatum paste was rubbed into the surface. Next closure was accomplished by suturing tightly so that no dead cavity was left. He stated that his results had been most satisfactory whenever this procedure had been adopted.

Bevan in a letter published in the *Journal of the American Medical Association,* November 17, 1917, discussed the value of the Carrel-Dakin treatment of wounds. He stated that the belief that any antiseptic possessed any healing property, or was miracle working in the treatment of wounds was inconceivable, and he stated further it was his belief that the choice of any one of a half dozen thoroughly tried antiseptics would not make any enormous difference in the sum total of the end results.

In October, 1917, Hey[90] advocated the staining of the tract of the wound with a 0.5 per cent water solution of brilliant green as an aid to more complete debridement. This having been accomplished he suggested that a paste composed of boric acid 11 ounces, French chalk 1 ounce, liquid petrolatum 8 fluid ounces and brilliant green (1-500) 17½ grains should be smeared over the wound surface. He stated, however, that complete excision of the wound was the essential and that without this the use of any antiseptic was practically worthless.

Duval[92] in an address delivered before the Societe de Chirugie de Paris, in November, 1917, presented a very accurate estimation of the methods then in vogue for the treatment of wounds of the soft parts. He stated that whenever possible all wounds should be treated within a period of twelve hours after infliction. He stated that all wounds should be widely opened and all foreign bodies removed. Surgical cleansing having been completed, the wound could be sutured immediately, or secondary suture could be performed after progressive sterilization. Immediate suture was stated as his method of choice, but this could only be attempted under certain conditions. These latter included experienced surgeons, perfect equipment and the possibility of a hospital residence for the patient of at least fifteen days under the care of the operating surgeon. Whenever such conditions could not be maintained, secondary suture was advocated.

The results obtained in certain designated hospitals where primary suture had been performed and other hospitals where secondary or deferred primary suture were the methods used, were of extreme interest, primary suture resulting successfully in all but four per cent, and not a single grave accident being noted.

Amongst those cases treated by deferred primary suture, which was described as surgical debridement and lavage with ether followed later by closure, no untoward results were noted. There were no deaths, no case developed gas gangrene or tetanus. He concluded that retarded primary suture yielded equally as good results as primary suture, and that the systematic sterilization of wounds was useless in at least two-thirds of the cases. As a consequence, he gave as his opinion that secondary suture should give way to deferred primary suture.

Short, Arkle and King[93] in October, 1917, stated that the use of Hey's paste, composed of brilliant green, boric acid, French chalk and liquid petrolatum would, in the majority of cases, sterilize a wound within three days.

Morrison[94] advocated the opening of wounds, their cleansing and the removal of all foreign bodies, after which the cavity was mopped with methylated spirit and dried. He next filled the wound with B.I.P.P. and applied a sterile dressing.

At the same time Gray[95] suggested the use of liquid petrolatum combined with boric acid, iodoform or some of the germicidal dyes such as flavine or brilliant green after proper surgical wound cleansing had been performed.

A report of a special committee appointed

by the Director-General of the British Army Medical Services to investigate the merits of the Carrel-Dakin method of wound treatment was published in the Journal of the American Medical Association, December 1, 1917. This committee decided that the method of application was of value, but that other antiseptic solutions could be employed as well. They further stated that this method of treatment appeared to diminish the dangers incidental to sepsis including secondary hemorrhage, that it hastened the convalescence of the patient, that it lessened the liability to stiff joints and scar deformities, and that when secondary operations became necessary such operations were more likely to be free from septic complications than was the case when some other system of primary treatment had been adopted.

Drummond and McNee[97] in October, 1917, urged the use of flavine in a dilution of 1 to 1,000 of normal saline. They insisted upon the necessity of excision of infected and damaged tissue before the flavine solution was applied and further stated that infected wounds were not rendered bacteriologically sterile even after the prolonged use of flavine.

In January, 1918, Taylor[98] stated that the hope of a general antiseptic for infected wounds seemed far removed. He advocated the use of a specific antiseptic for specific infections.

Moynihan[99] in December, 1917, stated that the excision of all contaminated, infected or dead tissue, together with the removal of all fragments of clothing and of all projectiles, was of supreme importance in the treatment of gun shot wounds . He believed that when this was done immediate closure could be performed in eighty to ninety per cent of early cases.

Concerning the use of antiseptics, he stated that sufficient reliance did not appear to be placed on the power of the natural defenses of the tissues for controlling infection.

Gould[101] in November, 1917, lauded the use of Morrison's bismuth, iodoform, petrolatum paste in the treatment of wounds, but insisted upon the thorough surgical cleansing of the wound before the paste was applied and primary suture performed.

Bosley[103] in January, 1918, wrote that wounds with small entrance and exit might be treated with a dry dressing and subsequently not disturbed, while large wounds required an early and thorough excision of all ragged and detached bits of tissue. He stated also that the most important fact was the excision of all tissue with a deficient nutrition, or such tissue as might have been contaminated. He decried the use of B.I.P.P., stating that nephritis was not an uncommon complication wherever this preparation had been used.

Neff and O'Malley[104] stated in January, 1918, that the belief that sterilization of a septic wound by means of any solution was absurd, since only the pathogenic germs upon the surface of the wound were affected, while such solutions were powerless to affect pathogenic bacteria beneath the wound surface where the active micro-organisms in the production of the infection were located.

The "Paris Letter" of December 27, 1917, published in the *Journal of the American Medical Association* dated February 2, 1918, quoted Potherat's report upon primary and secondary suture of war wounds. He reported two complete failures and eleven partial failures amongst 221 primarily sutured wounds. He stated that the failures were the result of an insufficient excision, while the partial failures were caused by insufficient hemostasis, whenever secondary suture was employed. He also stated that he preferred a wet dressing composed of 12.5 per cent solution of magnesium chloride to which 0.125 gm. of ammonium chloride had been added, to the use of Dakin's solution.

Bashford, Hartley and Morrison[106] in December, 1917, published a report of their findings after treating fifty infected wounds with either acriflavine or proflavine. They were convinced that the use of either of these dyes was of no value.

Lee and Furness[107] in January, 1918, stated that they had obtained just as good results in the treatment of wounds with dichloramin T as they had previously obtained by means of the Carrel-Dakin method. They believed that dichloramin T had a decided advantage since skin irritation was absent when small dressings were employed. However, they stated that surgical cleansing of the wound was the essential of proper treatment of war wounds since chemical germicides would react only on the bacteria with which they came in contact.

During a meeting held in Paris February 5, 1918, DePage[111] discussed the then recognized method of wound treatment. He stated that not only infected foreign bodies, such as splinters, shreds of clothing, etc., must be removed, but all contamination and injured tissue as well. He stated that the area of attrition was not limited to the tissues which had come directly into contact with the projectile, but that it extended to a depth of from 0.5 to 2 cm. around the path of the missile. He then described the technic of excision of this dead tissue, the ideal method being excision en masse, which, however, could rarely be performed.

In February, 1918, Pilcher and Hall[112] wrote concerning the results obtained when flavine was used as a disinfectant. While seeming to

favor the Carrel-Dakin method, yet they advocated the use of flavine because of the relative ease of wound treatment, a point of extreme importance whenever many wounds required treatment, and the number of surgeons was limited.

In March, 1918, Pearson[114] stated that he had been forced to conclude that in cases where infection was active the use of flavine had no beneficial effect, while in cases in which sepsis had already been controlled and in which repair had begun, flavine exerted an injurious action.

In February, 1918, Pereira[115] stated that it was his belief that the best wound disinfection was accomplished by mechanical means rather than chemical. He also called attention to the fact that germs become accustomed to one disinfectant so that frequently a change to another was indicated. He favored the Carrel-Dakin method of wound treatment, and also stated that when this method was not available, good results could be obtained by means of irrigations with a twenty per cent soap solution.

In March, 1918, Bowlby[117] published an article dealing with the early primary suture of war wounds. He mentioned the necessity of strict asepsis, as well as the necessity of extreme care, in the operative procedure if primary suture was to be successful. He stated that as much skin should be saved as possible, but that no portion of the wounded area should escape dissection. Further he wrote that the excision of small wounds of the soft parts gave the best results, and that patients suffering from such injuries were cured within a few days or weeks instead of months as was the case whenever such wounds became infected. He reported 1,202 cases in which primary suture had been attempted followed by complete success in 70 per cent. Many of the remaining 30 per cent had but a superficial suppuration, and consequently had been closed by secondary suture at an early date.

Morrison[118] in March, 1918, advised the use of a paste made of 1.5 pounds of magnesii sulphas exsiccatus mixed with 11 ounces of glycerine and phenol in the proportion of one to ten, as a dressing for infected wounds.

In May, 1918, Baer[119] wrote concerning primary and delayed primary suture in the treatment of war fractures. He stated that it was then generally conceded that all battle wounds should be considered as infected, that it was necessary to remove all projectiles, clothing and devitalized tissue as early as possible, preferably before the twelfth hour after injury, and that such wounds could then be considered as aseptic in character and primary suture performed, thus converting compound fractures into simple fractures. He laid particular stress upon the necessity of early treatment of bone injuries by either primary or delayed primary suture.

Menciere[120] in April, 1918, again wrote of the advisability of using his embalming treatment of wounds whenever many wounded had to be taken care of within a short time, and careful surgery could not be given to all at once. In such instances he advised the spraying of the wounds with a solution composed of ten gm. each of guaiacol, eucalyptol and balsam of Peru, 10 gm. of iodoform, 100 gm. alcohol and ether sufficient to make one litre.

Carslon and Templeton[121] in May, 1918, published an article dealing with the comparative value of acriflavine and proflavine as germicides in the treatment of infected wounds. They believed that acriflavine was the superior of the two and stated that when it had been used, the wound cleaned up more rapidly in spite of the fact that it was not rendered bacteriologically sterile.

About the same time Massie[122] reported his observations following the use of brilliant green. He preferred a solution of 1 to 500 in 0.5 per cent chloretone, and believed it to be a useful antiseptic, but stated that it would not atone for an incomplete primary wound excision.

Lemaitre[123] during the early part of 1918 reported his belief following an experience of over two years with primary suture in war wounds. He stated that it was not necessary to cut away more tissue in preparing for primary suture than was essential when any other method of treatment was used. All devitalized tissue should be removed, but no more. This having been completed and perfect hemostasis having been obtained, the wound was swabbed with a 5 per cent solution of tincture of iodine, after which it was sutured.

He stated that infection already established was a contraindication to primary suture as well as where there was so much destruction of the circulation of the injured part that proliferation of anaerobic bacteria would be aided in case of suture. He stated that the streptococcus had been responsible for his failures in primary suture, but that this was limited to only 0.84 per cent of the cases in which primary suture had been performed.

Gross[124] in May, 1918, wrote that in the care of the seriously wounded primary suture had reduced the mortality to ten per cent. He further stated that every wound not contaminated with a streptococcus should be treated by primary suture.

Goadby[125] in May, 1918, published an article dealing with the bacterial flora of war wounds as governed by the antiseptic employed. He reported fifty wounds having been treated with

Dakin's solution, forty with "bipp", and ten with flavine and brilliant green. He was of the opinion that one antiseptic was of no more value than another, and stated that immediate excision of lacerated tissues was the only method that had produced a marked diminution in the anaerobic flora of wounds.

Fiessinger and Clogne[126] published a report in October, 1917, concerning the improvement noted in wounds treated by the Carrel-Dakin method. They stated that the improvement noted was caused by the proteolytic action of the hypochlorites upon dead tissue and not because of bacterial sterilization.

Hull[127] in June, 1918, stated that while the ideal method of treating gun-shot wounds was their excision during the pre-inflammatory stage, yet, because of the exigencies of war, such a course was frequently impossible. Whenever conditions were such that complete excision was impossible, he suggested that the instillation of such substances as flavine or dichloramin T might retard the growth of bacteria sufficiently so that the pre-inflammatory stage would be lengthened and thus operation deferred while still efficient.

Wright, Fleming and Colebrook[128] stated in June, 1918, that it was an error to teach that every wound should be sterilized before closure, as a consequence of which primary suture was avoided and secondary suture was performed only after a course of treatment with antiseptics. They believed that following early surgical cleansing a wound was as good as sterile and that primary suture was then indicated.

In June, 1918, Ball[130] published an extensive article upon the subject of delayed primary suture. His report was based upon the records of one hundred consecutive cases, which had previously been debrided and the wound afterwards packed with gauze soaked with flavine, plain gauze, ether packs, or "bipp". Delayed suture had been successful in fifty-nine cases and partially successful in twenty-six. He reported fifteen failures and stated further that there was nothing to indicate that one form of packing was any better than another. He insisted that the first essential was adequate excision of all damaged tissue.

Gross[131] in April, 1918, stated that debridement followed by primary suture of war wounds was the essential in military surgery learned from the war. He advocated this method of treatment in all cases except those infected with the streptococcus.

Baer[133] in August, 1918, wrote concerning primary and delayed primary suture as a method of treatment of war fractures. He stated that primary suture was the method of choice and that it might be successfully performed in from eighty to ninety per cent of such injuries. He believed that not more than twelve hours should elapse between the time of receiving the wound and operation if primary suture was to be successful. He classified certain cases which could not be closed by primary suture, even within the twelve hour limit. These were cases in which shock was so marked that operation was contraindicated within this time limit, as well as such cases as presented deep wounds in which complete excision of all devitalized tissue was uncertain or impossible, as well as wounds from which the foreign body had not been extracted, and also wounds in which the tissue loss had been so great that complete closure was impossible.

Fraser[34] in July, 1918, reported the results observed in 285 cases of primary or subsequent suture, with special reference to the use of antiseptics. The best result obtained was where no antiseptic had been employed, but he stated that this could readily be accounted for because of the fact that with but a few exceptions only the slight wounds had been so treated. He gave as his preference delayed suture to immediate suture.

Plisson, Ramond and Pernet[135] in August, 1918, published an article dealing with their observations upon war wounds infected with a streptococcus. They stated that whenever a variety of this organism was present, primary suture was contraindicated. They believed that no antiseptic was of value, but that it was essential for the infecting organism itself to accomplish its own vaccination.

Morrison, Hartley and Bashford[136] in August, 1918, wrote concerning their observations in two hundred cases of war wounds which had been treated by various methods. While they favored the Carrel-Dakin method, they stated that those cases in which operation had been performed before a lapse of twenty-four hours after receiving the wound, progressed much better than those cases in which the chemical treatment was instituted first and the operation was performed at a later time.

Savery[138] in September, 1918, wrote advocating the use of flavine in septic wounds, or wounds likely to become septic He stated that it was essential that every portion of the wound be reached by the drug, and that the use of flavine should be temporarily discontinued as soon as a yellowish pellicle appeared upon the surface of the wound.

Other references could be cited, but the above review of the greater portion of the literature published upon the subject of the treatment of wounds during the war has been presented in this rather disjointed manner because it well illustrates the difficulties encountered by those who attempted to perform this service. The main outstanding factor is

the utter futility of attempting to sterilize an infected wound by means of any locally applied antiseptic.

One chemical substance after another has been recommended—some of which received much praise, while others were quickly discarded. All appeared to be of about equal value.

Once a wound has become infected, the outcome is dependent upon the ability of the individual in whose body the infection is located, to form immune bodies to the micro-organism causing the infection. This having been accomplished, secondary suture may be employed.

The writer has treated multiple wounds in the same individual, infected with the same micro-organism, with different solutions. One wound would have a dressing of normal saline, a second Dakin's solution and a third acriflavine. All would be ready for secondary suture at the same time, which, in the case of a staphylococcus infection, would be about the twelfth or fifteenth day.

While stationed at DePage's Clinic at La-Panne, Belgium, he saw Delray perform the same experiment and arrive at the same conclusion—namely, that local applications were of but little moment.

The operation of wound debridement is one that should not be entrusted to the surgical novice. To properly carry out this procedure requires experience, anatomical knowledge, and no small degree of skill. All such operations must be patterned after the ideal, which is complete excision of the wound. But rarely can such a procedure be carried out, the consequence being that in the severer types of injuries involving vital structures the amount of surgical wound cleansing is sometimes frequently limited and consequently far from the ideal.

In general, it might be stated that small wounds can be excised completely, while wounds which involve such structures as tendons, nerves and blood vessels must be surgically cleansed, as well as is possible, without removing structures that are essential for proper function. Thus a good operating surgeon will frequently cut away areas that show the presence of dirt upon tendon sheaths, leaving the tendon intact and trusting to the removal of pathogenic bacteria by means of thorough scrubbing with ether or the single application of some germicide, after as complete a dissection of the wound as is possible has been performed . In another case of similar character it may be best to resect the lacerated dirty tendon and suture, or the excision of a V-shaped portion and subsequent suture may be indicated. It is because of the wide range of possibilities as to the better plan to adopt at the primary surgical cleansing, that it is of extreme importance that only surgeons possessing considerable experience and having sane judgment should be entrusted with this type of work.

Certain rules may be given, such as the complete excision of the skin margin, the cutting away of muscle tissue until it contracts under the injury and also bleeds freely, the absolute necessity of cutting away dirty fascia, since its resistance to bacterial infection is low—but the exact amount of tissue that must be excised to avoid infection, and what amount it is safe to leave, since over removal is just as bad as under removal, can only be learned through practical experience.

After thorough surgical cleansing of wounds the application to the freshened surface of many various chemicals has been advocated. In general the practice was to scrub out the wound with ether, not because of any particular bacteriacidal properties of ether, because it has none, but because it is an extremely good solvent of grease and dirt, and thus exposes and removes bacteria contained therein.

During the more than seven years which have elapsed since the great war, the writer has attended to several hundred injuries, which have been assigned to his service at Harper Hospital and the Detroit Diagnostic Hospital at Detroit, Michigan. These have run the gamut from stab wounds of more or less serious import to gun-shot wounds and crushing injuries such as are caused by being run over by autotrucks, etc. Not one case has resulted in an infection, while many cases, receiving their first aid in some institution where debridement and primary suture was not the method instituted, have later come under observation because of most severe sepsis.

In civil practice early surgical wound cleansing is almost always possible, and if there is any danger of the tetanus bacillus having been introduced into the wound, antitetanic serum should be administered at the same time.

The practice of playing safe by means of the introduction of some form of drainage into a debrided wound primarily sutured should be discouraged. Any foreign body inserted into a wound causes a leucocytic and blood cell exudation around the drainage. Such cells die and thus furnish excellent culture medium for any pathogenic bacteria that may be present. Close, tight, primary suture, with deep and firm stay sutures, is essential, as well as thorough debridement, so that as few dead tissue cells as is possible may be left in the wound. Dead tissue cells appear to give pathogenic bacteria a better chance for initial growth and subsequent infection.

It has been frequently stated that debride-

ment of wounds was nothing new and that Larrey advocated this method of treatment during the Napoleonic wars. Such a statement, however, is not strictly within the truth. It is a fact that Larrey advocated early operation and opening of wounds, but before that time Pare, who lived in the sixteenth century, when the practice was to treat gun-shot wounds with burning oil, had discarded that method and advocated wide incision.

The original method of Lord Lister, in which he advised the swabbing of a wound surface with carbolic acid, was, in fact, a chemical debridement, while possibly the burning oil, previously referred to, produced a heat debridement—yet the method of treatment by operative removal of all infected tissue must be acknowledged as a definite benefit derived from the knowledge of wound treatment acquired during the great war.

It remains for all teaching institutions to see that this method of treatment of wounds is properly instituted as a part of the instruction given to all medical students, especially to those who are to engage in the practice of industrial accidents.

A wound, which has been surgically attended within a fifteen hour time limit, and then becomes infected, shows an imperfect knowledge of surgical technique. The time of procrastination in the treatment of wounds has passed. All wounds requiring suture should be excised or debrided, and whenever an infected wound appears, the physician attending should be held responsible, and an explanation demanded. This, indeed, is the first and the greatest lesson learned from the surgical experience of the great war.

THE VALUE OF ANTITETANIC SERUM AS DEMONSTRATED DURING THE WORLD WAR

As early as September 28, 1914, Delorme, in a paper presented before the Academic des Sciences, stated that the greater number of deaths amongst the wounded were caused by tetanus and gaseous gangrene, and because of this fact he urged that antitetanic serum should be administered as early as possible.

Picque also read a paper before the Academie de Medicine in October, 1914, in which he advocated the administration of antitetanic serum upon the field of battle, and in the "Bulletin de l'Academie de Medicine" of October 6, 1914, Walther wrote concerning his experience with tetanus amongst the wounded. He had observed twenty cases, all of whom had been wounded along the Marne, all wounds being caused by shrapnel. He urged that all receiving shrapnel wounds be given prophylactic injections of antitetanic serum.

Kreuter in the "Munchener Medizinische Wochenschrift" of October 6, 1914, made mention of the numerous cases of tetanus occurring amongst the German wounded, and the accompanying high mortality, while Jackobsthal in the same journal, published October 13, 1914, advised the prophylactic injection of antitetanic serum upon the firing line in such cases as presented ugly, jagged wounds, or whenever wounds were soiled with dirt.

Czerny in the "Deutsche Medizinische Wochenschrift" of October 29, 1914, mentioned the exceedingly large number of tetanus cases following shrapnel wounds, and advised that prophylactic injections of antitetanic serum be given the same day that the injury had been received.

Dreyfus writing in the "Munchener Medizinische Wochenschrift" of November 17, 1914, reported twenty-four cases of tetanus resulting from war wounds. He stated that the prevention of scab formation was of much importance whenever the tetanus bacillus was present.

Kocher, in the "Deutsche Medizinische Wochenschrift" of November 17, 1914, advocated that a preventative injection of ten or twenty gm. of antitetanic serum be given every wounded soldier, and further, that following the slightest sign of tetanus, a supplementary injection of ten cubic centimeters be given in the vicinity of the wound, followed by an endoneural injection, as a nerve block, and also an intraspinal injection of ten cubic centimeters.

Hartman was quoted in the Paris Letter of December 17, 1914, published in the Journal of the American Medical Association of January 16, 1915, as recommending the injection of antitetanic serum in all of the wounded at the earliest possible time, while Saniton wrote in the "Bulletin de l'Academie',, published November 24, 1914, concerning his observations upon the treatment of this disease. He had attended twenty-two cases, of which six recovered. He had given bi-daily subcutaneous injections of forty to fifty cubic centimeters of a 2 per cent solution of phenol (Bacellis' Method) to his cases. In addition to this, he had administered, twice daily, enemas composed of six to eight grams of chloral, the yolks of one or two eggs and two hundred and fifty grams of milk.

Jacobsthal and Tanner published an article in the "Munchener Medizinische Wochenschrift" of December 1, 1914, in which they advocated the use of the ultra-violet ray for the destruction of the tetanus bacillus, as well as that of malignant edema. They stated that the application of the ray did not reduce the toxicity of the focus, and consequently surgi-

cal cleansing of the wound was imperative, the ultra-violet ray being used as a supplement to the other known methods of treatment.

December 14, 1914, Bazy, in an address before the Academie des Sciences, emphasized the necessity of administering prophylactic injections of tetanus antitoxin in all wounds regardless of their origin. He reported having seen fatal tetanus develop in nine out of one hundred and twenty cases not treated with tetanus antitoxin and in which the injuries resulted from bullet wounds.

Rogers published an article in the British Medical Journal of December 19, 1914, in which he advised the local application of a solution of potassium permanganate, one to five hundred, to tetanus infected wounds.

Kellerman in the "Munchener Medizinische Wochenschrift" of December 29, 1914, reported recovery in a case of tetanus after the injection of ten cubic centimeters of hydrogen dioxide into the wound. Serum therapy was also used.

In the "Berliner Klinische Wochenschrift" of February 8, 1915, Behring announced that they had produced a sufficient quantity of antitetanic serum so that it could be given in all wounded cases and stated that to do so was advisable. An article by Ritter appeared in the same issue in which he had followed the results obtained in the treatment of 60,000 wounded. Of this number, 0.7 per cent had died and tetanus had accounted for 0.4 per cent of the deaths. He advocated not only prophylactic injections of antitetanic serum, but the excision of the wound to a depth of one centimeter and into sound tissue as well.

Proust[143] stated in March, 1915, that since prophylactic antitetanic injections had become universal not a case of tetanus had developed in his service. Osler in the London Letter of July 23, 1915, published in the Journal of the American Medical Association of August 7, 1915, also stated that the occurrence of tetanus had practically ceased because of the early administration of antitetanic serum.

In August, 1915, Berard and Lumiere[144] wrote of what they termed tardy tetanus. They reported a number of cases in which tetanus had developed following secondary operations or other trauma, upon soldiers who had received prophylactic antitetanic serum after the original injury, and apparently recovered from their wounds. They insisted upon the necessity of repeating preventive injections of antitetanic serum before secondary operations were performed.

Wolf[145], from the German side, stated in September, 1915, that following the compulsory administration of antitetanic serum cases of tetanus had practically disappeared. He stated that prophylactic administration was especially indicated in shrapnel and grenade wounds.

Bruce[146] in October, 1915, reported two hundred and thirty-one cases of tetanus, with ninety-eight recoveries and one hundred and thirty-three deaths. He stated that cases of short incubation period and untreated furnished a mortality of 91 per cent. Cases presenting symptoms within ten days gave a mortality rate of 66.6 per cent, while cases presenting a period of from eleven to twenty-five days before the appearance of initial symptoms, gave a mortality of 39 per cent.

Only thirty-seven of the two hundred and thirty-one cases reported were known to have received antitetanic serum before the onset of symptoms. Of these, eighteen recovered and nineteen died.

After considering the results of treatment in the cases which had recovered, he decided that intraspinal injections were more efficacious than either subcutaneous or intravenous. He concluded that the essentials of proper treatment were—first, the placing of the patient in a quiet, darkened room; second, surgical cleansing of the wound, and third, the intrathecal injection of at least three thousand units of antitoxin accompanied by the subcutaneous and intravenous injection of from ten thousand to twenty thousand more. He advised the repetition of such injections whenever indicated, as well as the administration of sedative drugs, such as chloral.

MacConkey[147] stated that from 500 to 1,000 U. S. Army units of tetanus antitoxin was the correct prophylactic dose in most cases, and he further advised the repetition of the injection once or twice at weekly intervals in cases of severe wounds.

Teutschleander[148] reported a case in which fatal tetanus developed five months after a grenade wound of the chest. Antitetanic serum had been given, but a fragment of the grenade was located in one of the muscles of the back and tetanus bacilli were isolated from this scrap.

Kummell[149], after an investigation of the prevalence of tetanus in German hospitals during the first ten months after the giving of prophylactic injections of antitoxin had been instituted, reported that one hospital, which formerly had had many cases, now showed only one amongst seven hundred severely wounded, and this patient had failed to receive the prophylactic dose. Amongst 1,555 severely wounded, only 1 case developed. He believed that protection following prophylactic injection lasted but about 15 days and, as a consequence, he recommended the repetition of a second prophylactic injection at the end of one week in cases presenting badly soiled wounds.

In June, 1917, Bruce[150] reported two hundred cases of tetanus which had been treated at home military hospitals. The mortality had been 36.5 per cent, and of these cases, one hundred and two had received prophylactic injections of antitoxin. Of the one hundred and two who had received such treatment, seventy-four recovered and twenty-eight died, giving a mortality of 27.4 per cent in these cases.

Berard and Lumiere[151] in May, 1916, reported over twenty cases of tetanus developing in wounded following late operation. They quoted Roux's opinion that protection began to become less about the fifteenth day following the administration of antitetanic serum and was gone about the fortieth day. They advised the repetition of a prophylactic injection before undertaking any operative procedure.

Bacri[152] in October, 1916, advocated the giving of from 50 to 60 cubic centimeters of antitetanic serum daily for six days in cases in which tetanus had made itself manifest. He reported thirteen cases of established tetanus with recovery in all. Only five of these cases had previously received a prophylactic injection.

The London Letter published in the issue of January 5, 1918, of the Journal of the American Medical Association, quoted Bruce to the effect that early and thorough treatment with antitoxin had reduced the mortality in tetanus from 50 per cent to about 20 per cent. Bruce refrained from expressing an opinion as to whether this improvement was due to the specific treatment or to other factors. Concerning the length of the period of incubation, he stated that when the symptoms of tetanus appeared within ten days after the time of receiving the wound, the mortality was 40 per cent, when symptoms had first appeared between the eleventh and the twenty-fourth day, the mortality was 25 per cent, while when the incubation period was greater than twenty-five days, the number of deaths was reduced to thirteen and six-tenths per cent. The longest incubation period noted was three hundred and sixty-five days, while the shortest had been three days.

He further stated that since the beginning of the war, the average incubation period had been steadily lengthening, probably because of the systematized prophylactic administration of antitoxin.

About this time Leyva[100] published an article in which he advocated the use of sodium persulphate combined with antitetanic serum as a method of treatment for established tetanus.

Schellekens[105] wrote concerning local and tardy tetanus stating that early general tetanus had been abolished because of the administration of preventive antitetanic serum. He also stated that secondary or tardy tetanus had been conquered by the giving of preventive serum before attempting any secondary operative procedure. As a guard against anaphylaxis he advised a test injection of from 0.1 to 0.5 cubic centimeters of serum before administering the second prophylactic injection.

He called attention to cases of localized tetanus reported in which the symptoms had been restricted to the head, or a limb, or, again, to only one side of the body. Such cases were termed tardy tetanus and usually followed a secondary operation in which prophylactic injection had been overlooked before the secondary operation had been performed. He further stated that simple exercise of a part in which the tetanus bacillus had been implanted might be followed by an active infection.

Taylor[109] in March, 1918, published what he believed was the then present status upon the subject of tetanus. He stated that acute tetanus had become a comparatively rare disease because of the general use of antitetanic serum as a prophylactic injection. The amount of this preparation recommended was from 750 to 1,500 units in the French army and 500 U. S. A. units in the British army. He stated that in severe cases, especially those complicated with fracture, a second injection of 1,500 units should be given within six days. He believed that the immunity afforded by one injection lasted but ten days, and that acute tetanus might subsequently develop in spite of the primary injection. He stated that such cases had been observed where amputations had been performed at the front and in which devitalized tissue had been enclosed within the amputation flaps. From this observation he concluded that early debridement was of as much importance as the administration of antitetanic serum. He next mentioned the necessity of a prophylactic injection of 1,500 units of antitetanic serum before any secondary operation could be performed with safety, advising a preliminary desensitizing injection of from 0.5 to 1 cubic centimeter as a preventative to an anaphylactic reaction.

He stated that the treatment of acute tetanus was highly unsatisfacotry and that large injections of antitoxin by any method had but little effect. The same was true of phenol and magnesium sulphate, and that the prognosis in active tetanus was governed chiefly by the length of the period of incubation.

Concerning chronic tetanus, in which classification he included local tetanus, he stated that the treatment was largely surgical. In such cases wounds should be explored, dead tissue resected, bone fragments curetted and sequestrae removed.

As early as December, 1916, Gibson[153] had

recommended that injections of antitoxin should be given as soon as tetanus was suspected. He advocated giving about 1,500 units into the neighborhood of the wound, 5,000 to 20,000 units intraspinally and from 10,000 to 50,000 intravenously, the latter being given in divided doses during the first twenty-four hours. This was to be followed by intravenous injections of from five thousand to fifteen thousand units during the next twenty-four hours and, if the symptoms were still severe, he advised that an intraspinal injection be repeated upon the third day. He further stated that intravenous injections should be continued until apparent cure resulted.

Thus it can be seen that the treatment of active tetanus advocated in 1916 was much the same as the treatment advocated three years later, while the benefit of prophylactic injections was well shown by Bruce[154] as early as January, 1917, when he stated that before prophylactic injections of antitetanic serum were administered, the incidence of tetanus amongst the wounded had been in September, 1914, sixteen per thousand; in October, 1914, thirty-two per thousand, while in November, 1914, it had fallen to two per thousand, about where it had since remained. This fall could only have been credited to the prophylactic use of antitetanic serum.

After a critical analysis of the papers published upon the occurrence of tetanus amongst the wounded in the great war, the following conclusions appear to be the most important: First, the prophylactic administration of antitetanic serum has been proven to be of extreme value. It may be argued that wound debridement was an important factor in the prevention of tetanus. Undoubtedly this is true, but prophylactic antitetanic injections had been proven of value before wound excision was practiced, and consequently its importance was firmly established. Second, the fact that immunity secured by means of the administration of antitoxin was of comparatively short duration is of extreme value. Thus, when we vaccinate against typhoid fever, immunity lasts from one or two years to a lifetime. The same is true of smallpox, but when we borrow specific antibodies from another individual or animal, as is the case in the use of antitetanic serum, the resulting immunity is of extremely short duration. Thus, repeated injections were recommended in the case of particularly severe wounds, which could not be completely debrided, and second injections of antitoxin became an established regulation whenever secondary operations were indicated.

From this we can conclude that the last word in the establishment of immunity against infection by means of the tetanus bacillus has not been written, since when we borrow antibodies formed in the tissue of another animal, immunity conferred is of such short life, while if such antibodies are primarily established, the resulting immunity is more efficacious and of longer duration.

Lastly, it may be stated that nothing of extreme importance was learned concerning the treatment of established tetanus. Large and repeated doses of antitoxin still remain the most effective method of treatment. However, the best method is that of prevention, and prevention is best obtained by the immediate administration of antitoxin in all cases where there is the possibility of the bacillus of tetanus having been introduced.

THE MOBILE TREATMENT OF INFECTED JOINTS

Before the war there was no condition, the treatment of which was more rigidly outlined than was that of infected joints. It was regarded as of primary importance to place the part at complete rest. Thus proper splinting was always regarded as the essential, whatever other method of treatment was instituted, and an ankylosed joint, which possibly could be more or less mobilized by subsequent operative procedure, was thought the best result that could be obtained.

In January, 1915, Ritschl[155], while not discussing infected joints in particular, called attention to the fact that repose was harmful for both joints and muscles, being followed by stiff joints and weakened muscles. He advocated that in injuries of the extremities, joints be moved as early as possible and that massage be applied to muscles that could not be exercised.

Von Haberer[156] in February, 1915, wrote that fixation and non-intervention was the best treatment in wounds of joints. When infection did occur he advised that multiple small incisions be made through which rubber drains were introduced.

Tuffier[157] in June, 1915, advised resection of the knee joint instead of a thigh amputation following serious wounds of the knee.

Gray[158] in July, 1915, stated that wounds of the knee joint liable to become infected demanded immobilization, while Gangolphe[159] in October, 1915, also stated that the main essential in the treatment of infected joints was immobilization.

Lockwood[160], in discussing gun-shot wounds of the knee joint in January, 1916, advised the removal of all foreign bodies and loose bone at the earliest possible date, after which he instituted absolute immobilization. He further stated that when inflammation occurred, passive movements should not be allowed until three weeks had elapsed after its subsidence.

In April, 1916, Jones[161] stated that joint wounds invariably ended in ankylosis, and that the proper treatment was such as would result in the most useful position following fixation. He described what he regarded as the correct position in different joint injuries.

In May, 1916, Nove-Josserand and Tuffier reviewed 1,132 cases in which resections of shoulder, elbow or wrist joints had been performed, and 678 cases involving hip, knee and ankle joints. They stated that, in their opinion, secondary resection was preferable to primary resection whenever possible, but that many limbs had been saved because of primary resection. This was especially true with regard to wounds of the knee joint.

Delbert[163] in June, 1916, wrote concerning what he considered the proper treatment for knee joint wounds. He advised puncture in cases presenting joint effusion following small wounds in which no foreign body could be demonstrated. If, upon microscopical examination of a smear of the fluid obtained, germs were found, he advocated the immediate operation of simple arthrotomy by means of lateral vertical incisions. If no bacteria could be demonstrated, he stated that it was safe to wait and immobilize the joint. During this period he stated that the fluid removed should be incubated for twenty-four hours in a pipette. If germs could not then be demonstrated, no further action was necessary. If, however, germs developed, and especially if streptococci were present, a transverse incision was then made through the patellar ligament.

Whenever a foreign body was present its immediate removal was indicated and subsequent suture was governed by the result of pyo-culture. In cases of severe infection he advocated wide arthrotomy followed by immobilization and extension.

Collie[164] in August, 1916, was one of the first to protest against immobilization of joints. He stated that such treatment produced adhesions and advised that passive motion be instituted within a few hours, together with muscle massage. He stated that in his opinion splints should not be used in joint injuries.

Ponomareff[165] about this time reported his impressions of knee joint injuries in the Russian service. He advised rest and immobilization in infected cases, and whenever suppuration continued he stated that incision and drainage was indicated. If this proved insufficient, he stated that joint excision or amputation must be employed.

Fullerton[166] in November, 1916, published an article in which he stated that excision of septic wounds into the knee joint, with removal of foreign bodies when present, followed by suture of the synovial membrane, was the procedure of choice.

Depage[167] in December, 1916, reported one hundred and twenty-four cases involving wounds of the knee. He classified his cases as follows: First, wounds without large separation of the joints and without very serious lesions of the bone extremities: second, wounds with serious and wide lesions of the bone extremities.

He stated that various methods of treatment had been used. At first joints were drained after a shorter or longer period, together with the cleansing and excision of torn tissue. Such wounds had been irrigated with some antiseptic solution, and the limb was kept rigidly splinted. Discarding this method of treatment, Depage had next adopted that of Carrel, after opening and loosening the joint.

Still later he had practiced the immediate cleansing and closing of the knee joint despite extensive bone lesions. Wounded and bruised tissues were excised, the bullet or foreign material removed, the joint next washed with either Dakin's Solution or with ether, and the bones curetted. A small rubber drain was inserted for twenty-four hours and immobility secured. If, in spite of this, infection appeared, arthrotomy was resorted to and the Carrel treatment applied. However, when bone lesions were extensive, it was preferable to perform resection at once.

Derache[168] in January, 1917, advocated thorough surgical cleansing of knee joint wounds followed by suture of the synovial membrane and capsule. He also stated that early joint movement was essential, whenever possible, for the proper restoration of function.

Willems[169] in March, 1917, stated that immobilization was contrary to physiology and was positively contra-indicated. Active movement was essential in order to prevent stiff joints and muscular atrophy. Willems advised that every wound of elbow or knee should be treated by early debridement of the path of the projectile with removal of the same when present, as well as the removal of loose bony sequestrae. This having been accomplished, he advised primary closure. He recommended that active movements be commenced at once and that, if suppuration resulted, wide arthrotomy be performed and active movements continued.

In June, 1917, Makins[170], following his observations with British forces, recommended the earliest possible surgical treatment of joint wounds followed by primary suture whenever possible. This having been accomplished, he advised immobilization and extension.

Novis[171], speaking of wounds of the knee joint, insisted that, when infected, free drain-

age of the posterior pouches was essential. He stated that when this was done early the majority of cases would recover with a useful limb and many, with a fair amount of motion. His technic was to insert drainage tubes into the joints through incisions on both sides of the patella. Next, an incision was made on both sides between the hamstring and gastrocnemius muscles. He advised that the drainage tubes be removed as early as possible, and passive movements started.

Campbell and Woolfenden[172] in August, 1917, recommended that absolute rest and fixation be employed in knee joint wounds together with the strictest asepsis and the use of Carrel's method.

Barling[173] in September, 1917, published a report following a review of eight hundred and forty-five cases of wounds of the knee joint. He advocated excision of the wound, the removal of loose bone and foreign materials followed by irrigation of the joint surface and closure by suture.

Gay[174] published an article at the same time in which he advised similar primary treatment, laying special emphasis upon the thoroughness of the surgical cleansing of the tract.

Page[175] also wrote at this time advising complete surgical cleansing, whenever this could be accomplished within a twenty-four hour time limit. He also stated that immobilization was essential, especially after the onset of infection.

Mayo-Robson[91] suggested that by adjusting the position of the leg in knee joint infections, the supra-patellar pouch could be rendered the most dependent portion of the joint, thus affording better drainage. He inserted a drainage tube at the top of the pouch, and stated that when this method was practiced early, joint mobility was unimpaired.

Schwartz[96] in September, 1917, protested against the incising of the capsule and severing of the patellar tendon in knee joint wounds unless such a procedure was absolutely essential. He advised the cleansing of the wound from the side of the knee, leaving the patellar ligament intact whenever the bone was not fractured. He stated that whenever the bone was shattered, resection was inevitable.

Maisonnet and Chauvin[102] wrote that immediate operation was indicated in wounds involving joints. They recommended joint drainage, the removal of all sequestrae and early resection whenever indicated.

Judd[108] in February, 1918, advised that perforating wounds of the knee joint be treated by puncture, compression and immobilization. He stated that when foreign bodies were present, early intervention was essential. In such cases he advocated the performance of arthrotomy within forty-eight hours, together with the removal of the projectile, all foreign bodies and loose bone fragments; excision of the path of the projectile, followed by the cleansing of the joint and primary suture. Whenever there was extensive bone destruction he stated that primary resection was indicated.

Tatlow[110] in January, 1918, stated that early radical operation in wounds of the knee joint, where the capsule could be sutured, had been followed by a sterile joint in 94 per cent of his cases. He also insisted upon the necessity of splinting all joint injuries.

Speed[113] in March, 1918, wrote concerning gun-shot wounds of the knee joint . He stated that such injuries should be splinted at the first dressing post and that operation should be performed within eight hours, whenever possible, and within twenty-four hours as a maximum. After operation, splints were re-applied.

In infected joints he favored amputation when the infection was severe, although he described a method of draining such cases by means of a small opening through the upper portion of the subcrural pouch, the leg then being fixed in a Thomas splint and the patient turned upon the abdomen.

Monsarrat[116] in March, 1918, published an account of his experiences in the treatment of wounds of the knee joint. He insisted upon the necessity of early operation, which comprised the excision of the wound together with the removal of foreign bodies and detached bone fragments. He advocated no drainage into the joint proper, and stated that fiaxtion by means of splinting was essential.

Charles[129] in June, 1918, wrote concerning wounds of the knee joint. In this article he called attention to the necessity of accurate knowledge of the location of the foreign body and that the extent of bone injury should be ascertained by means of roentgenography whenever possible. He insisted upon a careful excision of the tract of the wound, together with the removal of all infected material. He stated that in nearly all cases it was possible to remove the entire tract of the missile intact down to the joint cavity. If the foreign body was found loose in the joint cavity accompanied by no bony injury, its removal and the irrigation of the cavity with normal saline was sufficient to permit primary closure. Whenever the foreign body was impacted in bone, it was removed with the portion of bone surrounding it. He advocated the filling of holes in articular surfaces with fat taken from the infrapatellar pad. After operation he advised the use of a Thomas splint.

Willems[132] in March, 1918, published another article relative to active mobilization of joints after war wounds. He advocated the

evacuation of pus in infected joints and active movement thereafter. He insisted upon the necessity of motion from the very first, and stated that the results following this method gave perfect function. He also wrote that if sudden pain developed and joint movement became limited, it was due to effusion which, when evacuated, allowed motion to be again instituted.

In February, 1918, Delmas[137] published an article dealing with his experience in the treatment of wounds of the knee joint. He stated that Willems' method of immediate active mobilization had resulted in more rapid and perfect cures in aseptic cases than had been observed whenever any other method had been employed.

Neve[139] in September, 1918, published his opinion concerning the proper care of septic wounds of the knee joint. He suggested tapping and the subsequent distending of the joint with some antiseptic such as flavine or iodoform emulsion during the earliest infective stage. This he combined with fixation of the leg. He stated that whenever sepsis was established thorough drainage was essential, and advised suprapatellar, anteriolateral and posteriolateral incisions. He favored Carrel's method as the best for the introduction of any antiseptic within the joint cavity.

Fasani[140] in July, 1918, stated that conservative treatment of joint wounds gave poor results and he consequently advocated early operation in the more serious cases.

He employed a median longitudinal incision in wounds of the knee joint, the incision being carried through the patella and dividing it in half. He began passive movements from the fifth to the eighth day following operation.

Campbell[142] wrote concerning wounds of joints in October, 1918. He stated that absolute rest and fixation were the first essentials. He was of the opinion that movement could be begun about the tenth day in aseptic cases, but that when even a moderate degree of sepsis was present, three weeks free of clinical symptoms were essential before movement could be instituted.

After a careful resume of the articles written concerning the treatment of joint injuries and infections, two facts stand out as being of the greatest importance:

First—Early surgical cleansing will permit primary closure in open wounds of the joints, and injuries treated in this manner will not result in infection.

Second—When infection is present in a joint cavity proper, drainage and active motion give the best end results. This method of treatment can always be used provided that the amount of bone injury present is not so great as to contra-indicate it.

Willems' method of mobile treatment of joint infections gives promise of being of even greater benefit in the infections commonly met with in civil life than was the case in war wounds. Thus the acute joint infections caused by the gonoccus, staphylococcus and streptococcus, and not associated with primary bone injury, furnish the type most amenable to this method of treatment. Muscle atrophy can be avoided, and joint ankylosis can and should be prevented.

Active mobile treatment with incisions sufficient to give ample drainage is one of the three great surgical lessons gleaned from the war.

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(Continued on Page 541)

PUBLIC HEALTH ACTIVITIES

Edited By

MICHIGAN DEPARTMENT OF HEALTH

QUESTIONS AND ANSWERS ON THE KAHN TEST

During the past six months the writer has had occasion to demonstrate the Kahn Precipitation test at New York City before the New York State Medical Society, at the Trudeau Sanatorium, Saranac Lake, at the University of Rochester Medical School, Rochester, New York, and at the Army Medical School, Washington, D. C. A number of questions were asked during these demonstrations, which, it is believed, will be of interest to Michigan physicians. The presentation of these questions with their answers forms the basis of this resume.

1. What is the essential difference between the Wassermann and Kahn tests?

There are several differences. The Wassermann test is based on the immunologic principle of "complement fixation" and the Kahn test is based on the immunologic principle of "precipitation." The technique of the Wassermann test, because of our lack of sufficient knowledge, is empirical since it is based on a system of arbitrary units, while the technique of the Kahn test is based on known principles which govern the phenomenon of precipitation.

However, the substances in syphilitic serum which give positive reactions with either test are probably identical, the two reactions detecting the same reagin.

2. On what basis is it claimed that the Wassermann test has a greater number of sources of error than the Kahn test?

The sources of error of the Wassermann test are due largely to the fact that the test requires five different animal reagents, four of which must be standardized in relation to the remaining reagents, each day that the test is performed. These standardizations or titrations may vary sufficiently from day to day as to bring about variations in the final results. Thus, on one day the Wassermann system might be "fast" and lose positive reactions and on another day it might be "slow" and gain positives. The Kahn test, on the other hand, is relatively free from sources of error because the test requires but one reagent—a stable antigen—aside from the patient's serum, and the procedure is relatively simple. These technical differences between the two tests help explain the occasional variation in the results even when it is assumed that both tests detect the same reagin in syphilitic serum.

3. Is the Kahn test specific for syphilis in the presence of pathological conditions of non-syphilitic character?

So far as experimental work indicates, the specificity of the test is not influenced by non-syphilitic pathological conditions. The ocassional non-specific results of the Wassermann test in such conditions are undoubtedly due to changes in the serum which increase the the fixation power of complement. The Kahn test does not employ complement and is thus free from non-specific complement fixation reactions. It should not be assumed, however, that this test is perfect. A biological test is bound to have a greater factor of error than a physical or chemical method.

4. Why is the Kahn test more persistantly positive in treated cases than the Wassermann test?

The tendency of the Wassermann test in treated cases is to fluctuate from positive to negative and positive again.

This is in part due to fluctuation in reagin in the patient's serum but also to fluctuations in the complement fixation test. Fluctuations in the precipitation test are reduced to a minimum making its results more constant.

5. Of what value is the Kahn Quantitative Procedure?

The blood of a patient before treatment may show 400 reacting units, at the end of the first course of treatment 200 units, and the end of the second and third courses 120 and 40 units, respectively. The routine test in all these examinations would be four plus and give no indication as to the serologic effect of the treatment. The physician thus has a record of the relative potency of serum before treatment with which to compare results after treatment.

6. Is the Kahn spinal fluid procedure as specific as the Wassermann test?

Our experience with spinal fluids is limited to about 3,000 examinations. This number indicates that this procedure is in certain cases more specific in the diagnosis of neurosyphilis than the Wasserman test.

7. What type of reactions does the Kahn test give with "anticomplementary" serums?

The fact that a serum or spinal fluid is

anticomplementary in the Wassermann test does not in any way affect the reaction with the Kahn test, the results being no less dependable than with non-anticomplementary serum.

8. How does the Kahn test compare in sensitiveness with the Kolmer-Wassermann test?

Giordano recently reported 96 per cent agreement between the two tests and Owen and Cope, 94 per cent. Greenbaum believes that the two tests should be run together as is done in Kolmer's own laboratory. Perhaps the most careful comparative study of the two tests was carried out by Kelly in Kolmer's laboratory. According to Kelly's results the Kahn reaction is more sensitive than the Kolmer-Wassermann in latent and neurosyphilis.

9. What is the comparative sensitiveness of the Kahn and Wassermann tests in primary syphilis?

The consensus of opinion of practically all workers is that the Kahn test is more sensitive than the Wassermann in primary syphilis. The former test is practically always positive during the stage of the chancre.

10. What is the significance of a four plus Kahn reaction in the absence of clinical evidence of syphilis?

The findings of practically all workers is that a four plus Kahn reaction means syphilis. However, the Kahn test or any other laboratory test should be considered only a single manifestation of syphilis to be interpreted in the light of clinical evidence or a history of infection. The final diagnosis of syphilis and the decision as to treatment in a given case must always remain problems of the clinician.

11. How widely is the Kahn test used without the Wassermann?

The Michigan Department of Health reported close to 60,000 Kahn tests (without Wassermanns) from October 15, 1925, to August 1, 1926. The United States Navy is employing the Kahn test as the official method for the serum diagnosis of syphilis in all its stations throughout the world. The test is employed in numerous hospitals in this country and is gaining considerable favor in foreign countries. The use of the Wassermann test is limited only to large medical centers while the Kahn test may be used everywhere with the same degree of accuracy. This makes the Kahn test especially acceptable in China, India, Russia, South America, etc.

12. What, in general, is the consensus of opinion of different workers on the Kahn test?

A composite summary of some 120 articles which have thus far appeared on the Kahn test would indicate that as workers become better informed on the correct technique of the test the more favorable are their findings. It is well to recall that practically all comparative studies on this test with the Wassermann are by workers who are masters in the technique of the latter test and but beginners in the former. Still, the literature of 1926 brings up practically only two questions—whether the Kahn test should be used alone or in conjunction with the Wassermann test. On examination of this literature, one soon finds that those who perform the Kahn test according to standard requirements are the ones who believe that the test can be used alone as a serum diagnostic agent. R. L. K.

NASAL DIPHTHERIA?

As previously reported,* the routine procedure in the laboratory diagnosis of throat infections includes a "direct examination." In about 80 per cent of the specimens from



Fig. 1 Direct Examination

diphtheria cases with membrane, a positive diagnosis is made on direct examination and confirmed by culture. Occasionally the laboratory diagnosis depends entirely upon the direct examination, for overgrowth by proteolytic organisms make the identification of diphtheria impossible without plat-

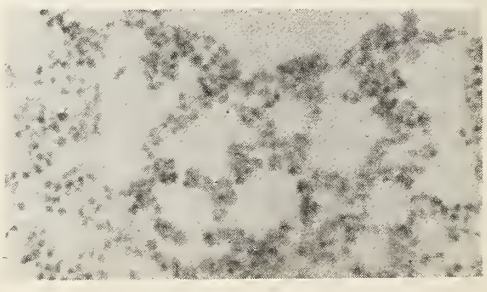


Fig. 2 Smear from Mixed Culture

ing and isolation—a procedure which requires two to four days. (Fig. 4).

The following case is one of five similar cases reported in the laboratories of the

* Laboratory Manual, Michigan Department of Health, 1923.

Michigan Department of Health during the past year.

Clinical History (quotation from physician's letter):

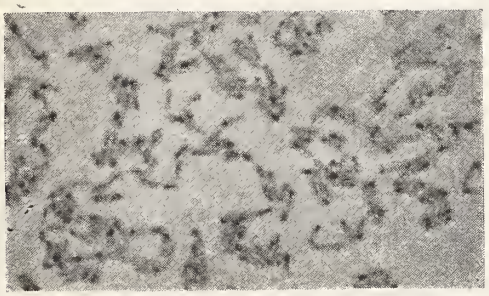


Fig. 3 Smear from Pure Culture

"Patient male 11 years old having hemorrhages on account of duodenal ulcer, ordinary symptoms of vomiting, rapid pulse, general weakness, etc.

For several days both nares have discharged freely giving off clear mucoid discharge but no blood, no air getting through passages. Today there seemed to be a membrane in both nostrils, two pieces of which I am sending in enclosed tube. Boy never had any temperature."

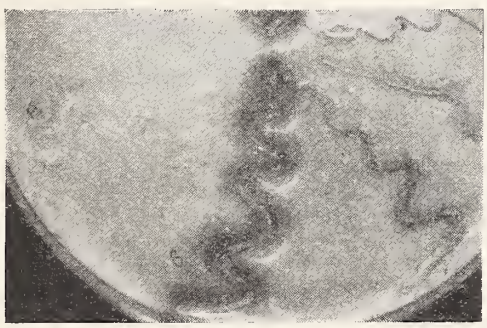


Fig. 4 Loeffler's Plate
a. Diphtheria Bacilli—b. Proteolytic Bacilli

Laboratory findings: Klebs-Loeffler bacilli on direct examination (Fig. 1), culture overgrown on Loeffler's serum medium incubated 18 hours (Fig. 2), pure culture after plating which produced toxin lethal for guinea pigs. (Fig. 3). C. C. Y.

WHAT TO DO IN CASE OF DOG BITE

1. The dog should be quarantined until history of rabies is investigated.
2. The wound should be cauterized with nitric acid.
3. If the dog shows signs of rabies, he should be killed by shooting through the heart, and the head sent to the Pasteur Institute, Ann Arbor.
4. If the child is bitten by a rabid dog, treatment can be had at the Pasteur Institute, Ann Arbor.
5. If dog shows no signs of rabies, civil action is the only recourse. C. C. Y.

PRESCHOOL CHILDREN AND DIPHTHERIA

The immunization of school children against diphtheria has gradually become a very general practice throughout Michigan. Toxin-antitoxin has been distributed to 77 of the state's 83 counties during the past 18 months. From January 1 to June 30, this year, 258,330cc of toxin-antitoxin were sent out, the largest quantity distributed in any six months period since biological products for the control of diphtheria were made available without cost.

The progress of the campaign has been satisfactory in many respects, but up to the present time comparatively few children under six years of age—the age group where diphtheria is an important cause of sickness and death—have been reached. When the preschool children are immunized diphtheria will be a thing of the past, but not until that time.

The family physician can do more to encourage the protection of young children against diphtheria than any other individual. It is hoped that physicians will appreciate this fact, and will impress upon the parents of children under their care the necessity for toxin-antitoxin immunization early in life.

G. H. R.

DR. RAMSEY TO JOHNS HOPKINS

After six years of service with the Michigan Department of Health, Dr. George H. Ramsey left Lansing, September 1st, to become Associate Professor of Epidemiology in the School of Hygiene and Public Health, Johns Hopkins University.

Dr. Ramsey joined the Department staff as clinician with the traveling tuberculosis clinic, later becoming director of the Bureau of Epidemiology and Deputy Commissioner of Health.

COMMUNICABLE DISEASE CONTROL

Report of the Bureau of Epidemiology for the fiscal year ended June 30, 1926, shows that representatives of the bureau made 1,680 visits to communities throughout the state. The majority of these visits followed requests from health officers or physicians for assistance, and were not the result of local situations demanding state intervention.

Services were rendered 398 cities, villages and townships in 77 of Michigan's 83 counties. The types of service given are shown in the following brief summary:

Type of Service	Number of Visits
Venereal disease control	687
Vaccination or immunization	630
Service in state or county institutions	179
Control of epidemics	64
Diagnosis of communicable diseases	35
Enforcement of quarantine	10
Miscellaneous services	75
Total	1,680

The sources of 34 outbreaks of communicable disease were investigated by medical inspectors from the bureau. There were no widespread communicable disease outbreaks during this time.

Plans for supervising typhoid carriers were inaugurated. Twenty known carriers were examined and given instructions as to their occupations and personal hygiene. These individuals agreed not to engage in work involving the handling of milk products or raw foods. In one instance the State Administrative Board granted funds for the partial maintenance of a carrier.

Much emphasis was placed upon the diphtheria protection campaign, especially upon encouraging local programs sponsored by county medical societies, financed locally, and carried on by local physicians. For demonstration and propaganda purposes the clinic unit from the department visited 10 counties, giving toxin-antitoxin (three treatments) to 29,235 individuals. The Bureau of Laboratories reported 496,610cc of toxin-antitoxin distributed to health officers and physicians in 72 counties during this period of time. Independent local campaigns have been reported from 52 counties and 90 individual cities and villages.

Investigation of methods for the prevention and treatment of scarlet fever have been carried on in co-operation with the Bureau of Laboratories and the Bureau of Institutional Health Administration. Report of a portion of this work, "Dosage of Toxin for Active Immunization Against Scarlet Fever" has already been published in the Journal of the American Medical Association.*

In general the number of cases of communicable diseases reported for August 1926 indicates quite a satisfactory condition. There was considerable decrease in the number of cases of pneumonia reported as compared both to July of this year and August of 1925 and was slightly below the average for the past five years. In typhoid fever there was quite a sharp increase as compared to July but this is a seasonal increase which was expected. It is, however, considerably below August of last year and below the average for the past five years. In diphtheria, while slightly below July, it is very materially above August of last year but it is hoped that this increase will not continue. Whooping cough showed quite a decrease from July and is considerably below August of a year ago. Scarlet fever showed a marked decrease from 641 cases reported in July to 273 in August. This, however, is slightly above August of 1925. Measles has evidently passed the peak and decreased from 946 cases in July to 231 in August but this is more than double August of 1925. There was a slight decrease in the number of cases of venereal disease reported.

W. J. V. D.

* Vol. 86:1340. May, 1926.

PREVALENCE OF DISEASE

August Report

Cases Reported

	July 1926	August 1926	August 1925	Average 5 years
Pneumonia	176	114	137	116
Tuberculosis	510	462	247	485
Typhoid Fever	43	75	114	167
Diphtheria	333	326	200	367
Whooping Cough	633	625	788	613
Scarlet Fever	641	273	269	339
Measles	946	231	109	155
Smallpox	36	40	29	50
Meningitis	9	9	5	9
Poliomylitis	2	13	11	49
Syphilis	1,232	1.211	1.128	827
Gonorrhea	942	794	801	881
Chancroid	7	5	8	12

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health

August 1926

	+	—	+—	Total
Throat Swabs for Diphtheria	.....	.....	....	676
Diagnosis	36	381	....	.....
Release	47	80	....	.....
Carrier	5	112	....	.....
Virulence Tests	7	8	....	.....
Throat Swabs for Hemolytic Streptococci	.....	.....	....	412
Diagnosis	88	208	....	.....
Carrier	12	104	....	.....
Throat Swabs for Vincent's	34	381	....	415
Syphilis	.....	.....	....	5916
Wassermann	7	25	2	.....
Kahn	1003	4815	62	.....
Darkfield	1	1	....	.....
Examination for Gonococci	265	1696	....	1961
B. Tuberculosis	.....	.....	....	1011
Sputum	245	732	....	.....
Animal Inoculations	1	33	....	.....
Typhoid	.....	.....	....	259
Feces	11	88	....	.....
Blood Cultures	6	50	....	.....
Urine	.....	13	....	.....
Widal	11	80	....	.....
Dysentery	.....	.....	....	66
Intestinal Parasites	.....	.....	....	13
Transudates and Exudates	.....	.....	....	155
Blood Examinations (not classified)	.....	.....	....	530
Urine Examinations (not classified)	.....	.....	....	298
Water and Sewage Examinations	.....	.....	....	1425
Milk Examinations	.....	.....	....	45
Toxicological Examinations	.....	.....	....	19
Autogenous Vaccines	.....	.....	....	9
Supplementary Examinations	.....	.....	....	210
Unclassified Examinations	.....	.....	....	508
Total for the Month	.....	.....	....	13928
Cumulative Total. (fiscal year)	.....	.....	....	27962
Decrease over this month last year	.....	.....	....	4434
Outfits Mailed Out	.....	.....	....	15212
Media Manufactured, c.c.	.....	.....	....	855590
Diphtheria Antitoxin Distributed, units	.....	.....	....	19804000
Toxin Antitoxin Distributed, c.c.	.....	.....	....	11150
Typhoid Vaccine Distributed, c. c.	.....	.....	....	2410
Silver Nitrate Ampules Distributed	.....	.....	....	15724
Examinations Made by Houghton Laboratory	.....	.....	....	1023

Official Minutes of the 106th Annual Meeting Michigan State Medical Society, September 14-15-16th, 1926, Lansing, Michigan

MINUTES OF THE COUNCIL

The first session of the Council of the Michigan State Medical Society was called to order at the Olds Hotel, Lansing, September 14, 1926 at 9:00 A. M. with Chairman Jackson presiding and the following Councillors present:

J. H. Charters, R. C. Stone, J. D. Bruce, O. L. Ricker, A. J. MacKenzie, B. R. Corbus, B. H. Van Leuven, J. Powers, R. Burke, Geo. L. LeFevre, Secretary-Editor F. C. Warnshuis, Executive Secretary Harvey George Smith, Ex-Presidents A. P. Biddle and C. C. Clancy.

The Council reviewed its Annual Report to the House of Delegates and upon motion of Corbus and Charters the report was approved and the Chairman directed to present it before the House of Delegates. (See Minutes of the House of Delegates for copy of report).

The following Resolution was presented and adopted. Resolution on the death of Doctor C. T. Southworth:

Whereas, The tragic and untimely death of Dr. C. T. Southworth of Monroe has removed from our midst, a fellow member and co-worker and former member of the Council, therefore

Be It Resolved, that we, the Council of the Michigan State Medical Society, do hereby inscribe in our records, this tribute and acknowledgment of Dr. Southworth's contribution to fellowmen and the medical profession. A man possessed of an endearing personality, a friend of fellow workers, a physician of ability and conscientiousness, a citizen of integrity, Dr. Southworth commanded our respect and held our esteem. Willing to aid to his uttermost, ever extending the helping hand, contributing unstintedly of his time and energy, he exercised a constructive influence to our organizational progress thereby making possible the attainments our society reflects. Dr. Southworth exemplified these and similar qualities during the 40 years of his professional life and evidenced the spirit that characterizes the life of noble physicians.

Be It Further Resolved, That the sincere sympathy of the Society be extended to his son, and our fellow member, Dr. Varnum Southworth, assuring him that we mourn with him by reason of the loss of so noble a father, while biding him to receive comfort and peace in the memories that must be his of a loving father.

Adopted and inscribed upon our minutes this sixteenth day of September, 1926.

J. B. Jackson, Chairman,
F. C. Warnshuis, Secretary,
C. G. Darling, President.

The Secretary-Editor presented the following invitation from the Grand Hotel, Mackinac Island:

"Council of Michigan State Medical Society,
Dr. F. C. Warnshuis,
Grand Rapids, Michigan.

Gentlemen—This is an invitation from the Grand, Mackinac Island, Michigan, requesting the honor of entertaining the Michigan State Medical Society in 1927.

In taking care of your Association, we propose turning over to you the entire hotel. The following meeting rooms would be available for your party:

Convention Hall, capacity	1,000
Ball Room, capacity	700
Grill, capacity	500
Club House, capacity	500
Tea Garden, capacity	Unlimited

Private Dining Rooms and other smaller committee rooms with capacity ranging 50 to 200.

It is important to note that the above facilities would serve splendidly for the sectional meetings, of which I understand you have many. Again, all facilities are under the same roof or on same premises, thereby assuring immediate contact with all the members all the time. This is the ideal arrangement for accomplishing the work necessary to be carried out at convention time.

Possessing these facilities to take care of you, we are not without entertainment. We have our Palm Beach rolling chairs, two golf courses, large outdoor swimming pool (filled daily with heated water) tennis courts, hotel speedboats, carriages, saddle horses, fishing, dancing, hotel theatre and every facility for your comfort and pleasure. Then there are the scenic and historical points of interest—Arch Rock, Sugar Loaf, Skull Cave, Fort Holmes, Lover's Leap, Devil's Kitchen, Pontiac's Lookout, Wishing Spring, British Landing, Chimney Rock, Battlefield of 1812, Museum at Old Fort Mackinac, etc. I am sure I could work out a very attractive program that would have a strong appeal to your members as well as the ladies accompanying them.

An ideal time for you to be with us would be June 14th to June 17th inclusive. A special boat from Detroit also from Chicago could undoubtedly be arranged. The idea of an outing or a large house party would have a strong appeal to your members—thus assuring a splendid attendance. Or, special trains leaving Detroit and Chicago the night before, bring you to Mackinac in the following morning.

Best of all, we would name a special rate of $9 and $10 a day per person, American plan. There are 11 other hotels close-by, with rates varying from $3 a day to $8 a day, American plan, for those who would not want to stay at convention headquarters.

We would compliment the use of the convention hall, ball room, grill, tea garden, and all rooms necessary for committee rooms—the use of our hotel orchestra of 10 pieces would be without charge—(five hours on week-days, three hours on Sunday) the regular rate of $2 a day for Green fees on our golf course would be cut to $1 a day—there would be no charge of the swimming pool, tennis courts. In addition, we would serve, without extra charge, in lieu of the regular American plan evening meal, a banquet with special printed menu, one of the evenings you are

with us—but persons attending the banquet who are not registered guests of this hotel would be charged $3 per plate.

I want to begin early to plan an elaborate program for your entertainment, in the event you are to be with us. I know we can assure you an unusually successful meeting and hope to hear soon you have decided to be with us in 1927.

Cordially yours,
W. S. Woodfill,
Manager."

Upon motion of Charters and MacKenzie, the Chairman was directed to present this to the House of Delegates with the request that the House of Delegates voice an expression as to the desirablility of our holding our Annual Meeting at Mackinac Island.

The Secretary-Editor also presented a communication from the Chairman of the Bureau on Legal Medicine and Legislation of the American Medical Association relative to the National legislation now pending before Congress. On motion of Councilors Ricker and Stone this was referred to the House of Delegates for action.

The session adjourned to attend the meeting of the House of Delegates.

THE SECOND SESSION OF THE COUNCIL

The second session of the Council was held at 12 o'clock on September 14, 1926 in the Olds hotel. It was called to order by Chairman Jackson, with all the Councilors present.

Upon motion of Councilors Ricker and Stone, the American Medical Association plan of Red Cross Relief was adopted with the following change:

"That the Secretaries of County Societies together with the presidents of County Societies should serve as the heads of County Organizations."

Upon motion of Stone and LeFevre, the Executive Committee was empowered to make the necessary arrangements with the Medical Department of the Univxersity of Michigan for the hodling of a Post-Graduate Course of three days duration during the latter part of October or the first part of November.

Upon motion of Corbus and Burke, the Secretary and the Executive Committee were requested to suggest to the State Board of Registration in person that it adopt the necessary rules so that licenses to practice in Michigan will not be given to itinerant practitioners or those who are spending a few months in our resort regions.

Dr. Tibbals, Chairman of the Medico Legal Committee presented an extensive report of the activities of his committee and the work entailed. A number of questions were asked by various Councillors. A discussion of the policy in regard to doctors who testify for mal-practice cases was delegated to the Medical Legal Committee.

Upon motion of Randall and Burke, the Secretary was directed to arrange for a conference between the different state organizations dealing with Medical Health and Educational matters, to be held in Ann Arbor at the time of the meeting of the Council.

Upon motion of LeFevre and Randall, the January meeting of the Council is to be held in Ann Arbor at such date as may be selected by the Chairman of the Executive Committee.

Upon motion of Randall and Baird, the sum of Two Thousand Dollars was appropriated for the purpose of undertaking additional activities for the protection of the Public Health of the People of Michigan.

THE THIRD SESSION OF THE COUNCIL

The third session of the Council was held at 6:00 P. M. on September 14, 1926, with all the Councillors present.

The following Honorary Members were nominated to the House of Delegates:

Green nominated; F. A. Jones, Lansing; R. E. Miller, Lansing.

Charters nominated; Eugene Smith, Detroit; J. E. Clark, Detroit.

MacKenzie nominated; C. B. Stockwell, Port Huron; George S. Ney, Port Huron.

Burke nominated; T. A. Felch, Ishpeming.

The Council discussed the problem of redistricting the Councillor districts of the state. The following was the only action deemed advisable—that Livingston County be transferred from the 6th District to the 14th District. Upon motion of Charters and Bruce this recommendation was made to the House of Delegates.

The Executive Secretary gave an extended report to the Council of his activities and plans for the Fall and upon motion of MacKenzie and Bruce these plans were approved and the Executive Committee empowered to supervise the details.

THE FOURTH SESSION OF THE COUNCIL

The fourth session of the Council was held on Wednesday noon, Setember 15, 1926, at 12 o'clock with all the Councillors present.

Upon motion of Councillor Bruce, supported by Councillor Charters, the Chairman of the Council was authorized to subscribe up to $250.00 as the State Society's contribution to the expense account of our Joint Committee on Public Health Education.

Upon motion of Councillors Randall and Corbus, Mackinac Island was designated as the place for holding our 1927 Annual Meeting. The Secretary and the Executive Committee were authorized to make the most satisfactory arrangements possible as to dates and to submit their report at the January session of the Council.

Upon motion of Charters and LeFevre,

Dr. R. C. Stone was elected Chairman of the Council.

Upon motion of LeFevre and Powers, the Secretary was instructed to cast the ballot for Stone as Chairman for the ensuing year and the Chairman declared his election.

Upon motion of Ricker and Mackenzie Dr. B. R. Corbus was nominated as Vice-Chairman and the Council and the Secretary instructed to cast the ballot upon which the Chairman declared Dr. Corbus' election.

Upon motion of Baird and Charters, the Secretary was instructed to convey to the Ingham County Medical Society a letter of thanks and appreciation for the splendid provisions that had been made for our Annual Meeting, and for the effort that was being contributed by the Ingham County members to enhance the success of this meeting. On the same motion the Secretary was also instructed to enroll in our records appreciation of the services rendered by Dr. Davey, of Lansing, deceased, and to transmit a copy of same to his family.

Councillor Powers desired to enter upon our records the invitation extended by him in behalf of the Saginaw County Medical Society for the Michigan State Medical Society to hold its Annual Meeting in 1928 in Saginaw.

THE FIFTH SESSION OF THE COUNCIL

The fifth session of the Council was called to order at noon on September 16 by Chairman Stone and all the Councillors were present, and also Ex-Councillor Haughey, Ex-President Burr, Ex-President Kay, and newly elected Councillors C. E. Boys and Henry Cook.

Chairman Stone announced the following appointments for the Council committees:

Publication—Chairman, J. D. Bruce, B. F. Green, B. H. Van Leuven.

Finance—Chairman, Geo. L. LeFevre, A. J. MacKenzie, J. H. Charters.

County Societies—Chairman, B. R. Corbus, C. E. Boys, O. L. Ricker.

Upon motion of LeFevre and Charters the minutes of the Executive Committee meetings were approved and made part of the records of the Council.

Upon motion of Boys and Powers, the Executive Committee was directed to arrange for a legislative meeting in connection with the Ingham County Medical Society regular meeting. Upon the recommendation of President Jackson a tentative outline for our legislative program was discussed and referred to the Executive Committee.

Upon request of the Chairman of the Council, the Secretary outlined some of the duties that Councillors should perform in connection with the various projects that are now in effect pertaining to the activities of our County organizations. The Secretary also utilized the opportunity for expressing to the members of the Council his appreciation for the confidence expressed by the Council in him and manifested by the diamond ring that had been presented to him during the year.

There being no further business the Council adjourned. F. C. Warnshuis, Secrettary.

HOUSE OF DELEGATES

TUESDAY MORNING, SEPTEMBER 14, 1926

The 106th Annual Session of the House of Delegates of the Michigan State Medical Society was called to order in the Ball Room of Hotel Olds, Lansing, Mich., on September 14, 1926, at 10:30 o'clock, the Speaker, Dr. J. E. King, of Detroit, presiding.

Dr. J. H. Dempster, Chairman of the Committee on Credentials, reported that they held the credentials of 51 accredited delegates and he commended that this preliminary report of the Credentials Committee be accepted and these delegates be seated.

Upon motion of Dr. Biddle, of Wayne, supported by Dr. Hirschman, of Wayne, and carried, the preliminary report of the Credentials Committee was adopted.

The Secretary reported that he held in his hand the signed roll call of 53 accredited delegates and on motion of several members, the signed roll call was ordered to constitute the roll call of the House for the first session.

Speaker J. E. King stated that he had no Speaker's address to deliver to the House, and introduced the President of the Society, Dr. C. G. Darling, of Ann Arbor, who addressed the delegates upon pertinent matters pertaining to the activities of the House of Delegates and the individual delegate as a representative of the membership of the constituent component societies of our state organization.

The reports of the Council was submitted to the House by Dr. J. B. Jackson, Chairman of the Council. This report was referred to the Business Committee.

1926 ANNUAL REPORT OF THE COUNCIL

Members of the House of Delegates:

The Council, through you, submits the following annual report to our membership.

MEMBERSHIP

On January 1st, 1926, our paid membership was 3,013. The present status of the Membership is as follows—2,942 paid members and nine honorary members making a total of 2,951. At this same time one year ago our total membership was 2,860. This is a gratifying condition for it will be re-

membered that 1925 was the first year of increased dues. The Council interprets that our members are willing to accept the increase of dues providing tangible benefits and returns are evidenced. Your Council has endeavored to attain such results in directing the activities of the Society.

FINANCE

The following is a statement of the assets of the Society as of September 1st, 1926:

MICHIGAN STATE MEDICAL SOCIETY
TRIAL BALANCE AUGUST 31, 1926

	Debits	Credits
Old National Bank and G. R. National	$ 4,742.33	
Accounts Receivable	1,196.63	
Advertising Sales		$ 5,021.37
Bond Account—Society	17,000.00	
Allowance for Reduction Bonds to Cost		353.34
Medico—Legal Defense		804.41
Medico—Legal Defense—Bond Account	9,500.00	
Medico—Legal Defense—Reserve		9,500.00
Present Worth		10,206.12
Journal Subscriptions		7,485.70
Membership Dues		16,313.55
Council Expense	338.69	
Reprint Sales		1,064.49
Reprint Expense	791.06	
Journal Expense	7,674.85	
Interest Account		668.14
Professional Announcements		237.50
Delegates to American Medical Ass'n.	380.87	
Annual Meeting	30.96	
Post Graduate Medical Conferences	1,803.39	
Executive Secretary	3,664.00	
Stenographer	912.50	
Office Rental and Phone	346.16	
Postage and Printing	206.00	
Editor's Salary	2,000.00	
Society Expense	1,067.18	
	$51,654.62	$51,654.62

ENDOWMENT FUNDS

The Council has investigated whether it is possible to receive bequests and endowments for funds from which the proceeds will be employed for the furtherance of Post Graduate work. We are advised by competent legal authority that our Articles of Incorporation will not permit us to create such a fund in the name of the State Medical Society. The Society, however, can arrange a Trustee Group, of three or five members, and this Trusteeship may receive such funds and appropriate proceeds from this fund to the work of furthering Medical Education in Michigan.

The Council is imparting this information for two reasons—First, that it has confidential information that such bequests have been incorporated in the wills of some of our members. Second, the reason for imparting this is, possibly others of our members may be inclined to make such provision in their wills.

For your information, the following proceedure is pursued in the supervision of our Funds. At the Annual Meeting of the Council a Budget is made up for the ensuing year. All disbursements are made to conform to this Budget. Bills are audited and payments made by voucher signed by the Chairman of the Council, Secretary and Treasurer. Annually our books are audited by a firm of bonded, certified accountants. Complete control and information are therefore always at our command. The Council is not of the opinion that our Society should hold a large reserve fund. Our dues are sufficient to maintain a reasonable reserve, and will enable the Council to undertake new and additional work for the benefit and protection of our members. In addition to our present activities plans are in the formation for establishing post graduate courses at the University's extension for our District Conferences, newspaper campaign of Public Education, Co-operation with the Board of Registration for the better enforcement of our Medical laws, the exposure of quacks, legislative activity, as also material aid to County Societies in promoting the value of their meetings. These increased activities require funds, time and personal effort. The Council and its Finance Committee are ever mindful that our funds shall yield the fullest returns for every expenditure made, and that these returns shall ever be to the benefit of the individual member.

POST GRADUATE CONFERENCES

During the year—October 1925 to October 1926, 19 conferences were conducted as follows:

City	Date	District
Cadillac	October 15th	9
Ironwood	October 22th	12
Grand Rapids	October 28th	5
Pontiac	November 5th	1
Saginaw	November 11th	8
Port Huron	November 12th	7
Flint	December 9th	6
Battle Creek	December 16th	3
Bay City	January 26th	10
Adrian	March 9th	14
Kalamazoo	March 16th	4
Alpena	May 6th	13
Jackson	May 25th	2
Fremont	June 2nd	11
Cheboygan	June 9th	13
Escanaba	July 27th	12
Marquette	July 28th	12
Houghton	July 29th	12
Ironwood	July 30th	12

They have all been reported in The Journal. Comment as to their value need not be made at this time as our members individually and collectively have recorded their approval. The purpose is to still further enhance the value of this type of work and to make them of greater usefulness and help to our members. Plans for the University Post-Graduate Courses will be announced in The Journal as arrangements are perfected by the University which is active in advancing this progressive educational movement.

EXECUTIVE COMMITTEE

At the beginning of 1925, the Council created an Executive Committee composed of five members. This Committee has met monthly thereby enabling the Secretary to take up plans and policies and obtain therefor the judgment

and advice of the Council at monthly intervals. This plan represents anew your Council's recognition of the responsibility imposed in it and the discharge of that trust.

ANNUAL MEETING

By your action the Council is intrusted with providing the plans for your Annual session and supervising their administration. Mindful of the experiences of past years and especially last year, and also because of the expense involved, the commercial exhibits have been discontinued. It is hoped that in time they can be supplanted by scientific exhibits.

Our present program of combined and sectional meetings is the result of the expression voiced by a mail vote of our members.

HONORARY MEMBERS

Under the provision of our By-Laws the following are recommended for election as Honorary Members:

J. A. Mabbs, Ottawa County; Ralph Spencer, Kent County; D. Emmett Welsh, Kent County; Stoddard, Muskegon County; Paul A. Quick, Muskegon County; J. T. Cramer, Muskegon County; David Ralston, Wexford County.

SECRETARY'S OFFICE

For your information the following work is being undertaken in the Secretary's office, and will be imparted in due course in The Journal:

(a) Survey of population and Doctors in Michigan.

(b) Survey of cult practitioners in Michigan.

(c) Survey of family dependency for medical care, ability to employ, ability to pay and average annual medical cost as well as average medical charge.

(d) Compilation of Public Educational meetings.

As our scope of endeavor broadens there results a tremendous increase in office correspondence consuming several hours daily. This is mentioned solely to convey that our members and County officers should continue to feel free to apply at all times for information and the assistance available.

The field work of our Executive Secretary is reflected each month in The Journal. The Council desires to record its appreciation for the services being rendered by Mr. Smith. Mr. Smith is ever available to aid County Societies and it is recommended that he be called to come and assist you in your local problems.

ANNUAL MEETING

There is appended hereto possible features for our 1927 meeting at Mackinac Island. They are submitted for your consideration as to whether such location shall be selected for our 1927 meeting. The Council recommends that a bronze tablet be placed upon the monument erected in honor of Dr. Beaumont at Mackinac Island. This tablet to replace the inscription that was on this monument and which has become defaced.

COURSE OF LABORATORY TECHNICIANS

By representatives of our Society meeting in conference with the President and faculty of the Michigan State College a course for laboratory workers has been arranged. Members are urged to recommend students for this course.

JOINT COMMITTEE ON PUBLIC HEALTH EDUCATION

The Council desires again to direct attention to the achievements of this committee and to commend every support to its activities. Through this agency the public are receiving reliable health education and facts regarding medicine and health conservation. Each County Society should sponsor a series of such meetings each year. Our thanks are due to the organizations represented on the Joint Committee for their co-operation and support.

MINIMUM PROGRAM

As the result of the Annual Conference of County Secretaries a Minimum Program of County Society activity was formulated. This has been adopted by 29 County Societies. The House of Delegates is urged to take action whereby such a program shall become an established precedent for County Society work.

PERIODIC PHYSICAL EXAMINATION

Responding to the request of the American medical Association, a campaign of education on the subject of Periodic Physical Examinations was conducted. Speakers were arranged for County Meetings and a Manual that served as a guide was distributed to every member at a cost of some $385.00.

MEDICAL CONFERENCE

At the suggestion of President Darling a conference of representatives of our Medical Colleges, Board of Registration, and Board of Health was held in Ann Arbor in January. This conference resulted in a better understanding of our medical problems and is paving the way for extended concerted action. A second conference is planned to be held in January.

MEDICAL DEFENSE

By refering to the minutes of the Council, the work of our Medico-Legal Committee will be imparted. The Council commends to the House of Delegates the work of this Committee. Especially do we pay tribute to the Chairman, Dr. Tibbals, for the administration and wise direction of the work.

THE JOURNAL

The Journal is your official organ. Its columns are open to all members for scientific discussion and the presentation of personal opinions and views that are void of individual attack. The Journal is also the historical archieve of our Society, its units and personnel. Delegates are advised to enlist greater interest and a widened contribution to its pages.

SUGGESTED TUBERCULOSIS PROGRAM

While tuberculosis still remains a great part of the health problem which confronts us, general opinion says that there has been a steady decline in the death rate from this disease in the last twenty years. Another widely spread opinion is that this death rate has been reduced by education. Accepting these two facts as being true, sanatoria should partake rather of the form of schools than hospitals. The tuberculosis patient enters such a school to receive instruction concerning the care of himself and the protection of others. That is the essential point in the use of the sanatoria. Persons may receive various degrees of graduation from the school. Some individuals properly instructed may go back and take their place in the world and enjoy life and the pursuit of happiness. The other extreme will include those who are far advanced and little must be expected of them until they have been a long time under observation and instruction.

Tuberculosis should be just a part of the health program—a part of health education. Our health program begins with the expectant mother, and under proper direction should continue until the child becomes of school age. Every school should be a health center where, starting with the kindergarten, the child is taught the beginning of infections and infectious diseases, including tuberculosis. If this work is properly carried out along these lines, in twenty years there will be one state in the union whose dwellers will be acquainted with good health. It has become a well-established fact that most infections from the tubercle bacillus begin in infancy and childhood, and many of these show as glandular infections. By employing the suggested method of investigation, early diagnosis will be the rule instead of an exception. It will be a grand way of developing the mind of the people respecting medical science. The laws concerning the building and operating of sanatoria may not be perfect, but nevertheless, they are workable laws. With the machinery all ready set, much depends upon how we use it.

There are portions of the state where intensive education should be carried on with the people until a sanatorium is built. In other places because of poverty or lack of education, other methods should be pursued until the combination of purse and intelligence will be available for a sanatorium. It must not be forgotten that we are expecting all the time to lower our death rate and we may find less and less need for the machinery which we are putting in motion. We believe that the Department of Health, with the aid and council that the medical profession should give, will be able to work this out thoroughly. All of this will mean advanced education of physicians and lay associates along certain lines for early diagnosis and the promotion of health.

This proposition may be met by advising the establishment at the University of Michigan of a proper course for health officers and others connected with the health program, the expenses of which may be defrayed by the State Board of Health, or the State Medical Society. This plan should be developed by the Health Commissioner and some department of the University, and the Health Office may furnish some of the lectures of this course. This could be made a very popular program.

Dr. C. G. Darling.

AMENDMENTS

There are laying on your official table, two amendments to the Constitution and By-Laws which concern the election of the Secretary, Chairman of the Medico-Legal Committee and the Treasurer. The Council feels it incumbent, by reason of its intimate contact with the Society's affairs, to voice opinion thereon. Without entering into any extended discussion, it is the Council's recommnedation that these amendments be not adopted. The history of our Society clearly evidences that executive direction vested in the Council is wise and salutory. Inasmuch as the Council is elected by the House and subject to its mandates it is but reasonable to assume that the Council will faithfully discharge the trust vested in it. To do so it must have choice and control of the Executive officers, for these officials work out policies and plans of the Council. Therefore if you have confidence in the Council, and invest it with authority, that same confidence should be manifested in permitting it to elect its executive officers.

CONCLUSIONS

The foregoing report constitutes merely a citation of the Council's supervision of the Society's activity. Extended details have been purposely omitted for the reason that from month to month details are imparted in The Journal.

Your Council recommends that favorable action be recorded by the House of Delegates on the following projects:

1. Recommending that each County Society subscribe for from five to one hundred copies

of Hygeia to be placed in public reading rooms, schools and factories.

2. That each County Society adopt and carry out the Minimum Program for County meetings.

3. That the Council be authorized to join with the State Board of Registration for the enforcement of our State Medical laws.

4. That the Council be authorized to perfect a State Red Cross Disaster Relief organization in conformity tto the recommendations of the American Medical Association.

5. That the Council be authorized to institute plans that will lead to the establishment of a Post Graduate School at our University wherein our members will be accorded opportunity for continued study.

6. That the Council be authorized to organize a Woman's Auxiliary as endorsed by the American Medical Association and active in a goodly number of our sister states.

Respectfully submitted,
J. B. Jackson, Chairman.

The Chairman of the Council also referred to the House a resolution upon the death of Dr. C. T. Southworth, a former Councillor and co-member. This likewise was referred to the Business Committee of the House.

Speaker J. E. King appointed the following Business Committee:

Dr. Fred H. Cole, of Wayne, Chairman.
Dr. A. V. Wenger, of Kent.
Dr. Sam Osborn, of Ingham.
Dr. Frank Mercer, of Oakland.
Dr. W. E. Collins, of Kalamazoo.

Upon motion of Dr. Biddle, of Wayne, supported by Dr. Gardner, of Wayne, the Speaker was authorized to appoint a special committee to consider matters of national legislation which have been referred to the State Society by the Bureau of Legislation of the A. M. A.

The Speaker appointed:

Dr. J. D. Brook, of Kent.
Dr. A. P. Biddle, of Wayne.
Dr. C. C. Clancy, of St. Clair,

members of this special committee and referred to that committee for special consideration the communication from the Bureau on Legal Medicine and Legislation of the A.M.A.

Nominations for members of the Nominating Committee of the House were made from the floor and consisted of the following:

Dr. Harry F. Dibble, of Wayne.
Dr. A. V. Wenger, of Kent.
Dr. G. C. Hafford, of Calhoun.
Dr. Frank Mercer, of Oakland.
Dr. James D. Bruce, of Washtenaw.
Dr. A. W. Hornbogen, of Marquette.
Dr. L. J. Crum, of Kalamazoo.
Dr. R. H. Nichols, of Ottawa.
Dr. E. H. Webster, of Chippewa.

The Speaker appointed three tellers, consisting of the following:

Dr. William J. Cassidy, of Wayne.
Dr. J. J. Hirschman, of Wayne.
Dr. R. L. Clark, of Wayne.

The ballots were spread and the result announced by the Secretary.

Secretary: Mr. Speaker, the following is the result of your ballot for election of members of the Nominating Committee:

The highest number of votes was received by Dr. Dibble, 45; Dr. Krum is second, with 45 votes; Dr. Bruce third with 43 votes; Dr. Hafford fourth with 31 votes, and Dr. Webster fifth with 29 votes.

The other votes were: Dr. Wenger, 26; Dr. Mercer, 7; Dr. Hornbogen, 13, and Dr. Nichols, 25.

Dr. A. W. Hornbogen (Marquette): Mr. Speaker, I wish to state that I didn't want to be on your committee. I have been on it a great many years. Now if Dr. Webster does not appear before you, the upper Michigan peninsula will not be represented by any man on that committee. So I wish you would take this into consideration.

I move you that either Dr. W. H. Ellis, of Hancock, or Dr. W. L. Tuohy, of Bessmer, be voted upon as a substitute to act in Webster's place if he doesn't appear here for your subsequent sessions.

Dr. J. Albert Kimzey (Wayne): Mr. Speaker, it seems to me it is manifestly fair that this meeting here today, this representation, should vote for a man from the upper peninsula. The way it is now the upper peninsula is not represented. It seems to me that they certainly have a vote coming to them.

Dr. H. J. Hirschman (Wayne): Mr. Speaker, I was born in the upper peninsula and have the warmest feeling for the upper peninsula and for its products, but this whole question is absolutely out of order. A man from the upper peninsula was nominated and elected on the committee. If the representative from the upper peninsula has failed through probably no fault of his own to be present, that is not the concern of the House. Nominations have been made by the House, the vote has been cast and the result has been announced and all this discussion is absolutely out of order.

Speaker King: The next order of business is reports of the standing committees.

Secretary: Mr. Speaker, I would like to call to the attention of the members of the House the fact that reports of our standing committees are published in the program which was given to you at the time of registration, and are so imparted to the delegates. There is only one report that the House has not received and that is from its delegates to the American Medical Association. The suggestion I would like to make to the House is that these reports be referred to your Business Committee, unless the chairmen of these committees have some particular points to bring out about their reports, and that you also receive now the report of your delegates to the American Medical Association.

Dr. Walter J. Wilson (Wayne): I move these reports be referred to the Committee.

Dr. Andrew P. Biddle (Wayne): Mr. Chairman, as Chairman of one of the committees who desires to make an expression, if it is the wish of the House to refer these reports to the Committee without further comment, may I speak at this time? If it isn't the desire of the House to do that, I am perfectly willing to submit the report without this emphasis.

Speaker King: Would you care to make a motion to that effect?

Dr. Biddle: It would be up to the Speaker to decide.

Speaker King: Dr. Biddle, we have no desire to choke anything and we will be very glad to listen to what you have to say in regard to your report.

Dr. Biddle: I want to lay emphasis on it, I think it is serious enough to do so. We are fortunate enough to have on this committee a representative of the medical departmnt of the Unversity of Michigan and also the Dean of Detroit College of Medicine and Surgery.

The question of medical education throughout the United States is getting so serious and it has been so emphasized and so much in demand that these different colleges don't know how far to go; they don't know whether they are doing too much work at the different schools. This report has a constructive suggestion, and with your permission I will read simply the last few paragraphs which embody the substance of the report.

....Dr. Biddle read that portion of the report of the Committee on Medical Education on page 39 of the official program.... (See September Journal).

Dr. Biddle: I would suggest, Mr. Speaker, that attention be directed especially to that part of the report of the Committee on Medical Education.

Speaker King: It will be referred to the Business Committee.

We would like to hear now from the Chairman of the Delegates to the House of Delegates of the A. M. A.

....Dr. J. D. Brook read the report of the Delegates to the A. M. A.....

REPORT OF DELEGATES TO A. M. A.

Members of the House of Delegates,
Michigan State Medical Society.

The seventy-seventh annual meeting of the American Medical Association was held at Dallas, Texas, April 19-23, 1926.

The House of Delegates convened at 10:00 A. M. April 19, in roof garden of the Baker hotel, with Speaker F. C. Warnshuis presiding.

There was no outstanding issue to command the attention of the delegates, but the following subjects are a few of the more important and interesting topics upon which action was taken.

1. Resolution introduced by Dr. Southgate Leigh, Virginia, requesting the Council to consider the feasibility of allowing medical students to graduate at an earlier age, and allowing them credit for courses taken during the summer months, was adopted.

2. Resolution introduced by Dr. E. Elliot Harris of New York recommending the appointment by the Board of Trustees of a special committee on nurses and nursing education to investigate and report to the 1927 House of Delegates was unanimously adopted.

3. Resolution introduced by Dr. A. D. Dunn, Nebraska, as follows was unanimously adopted:

Inasmuch as contract practice is absorbing an ever increasing portion of general medical practice on account of the rapid development of business and industry and inasmuch as brokers under the guise of health, accident, and sickness insurance in which they purport as middlemen to sell medical service to the laity or entering the field of medical practice, be it
Resolved that:

(a) The whole matter of contract practice be investigated under the directions of the Judicial Council.

(b) Recommendations as to the policy of the American Medical Association toward contract practice, its functions, limitations, and control be submitted to the House of Delegates for action at its annual session in 1927.

(c) The trend and dangers to patient and profession inherent in this movement be analyzed and clearly set forth.

(d) Systematic effort be made to get clearly before the constituent societies the results of this investigation and whatever action the house of delegates may take in the matter.

4. The report of the Board of Trustees contains a rather lengthy recommendation in regard to medical relief in disaster, a synopsis of which is as follows:

The reason for suggesting this is the confusion and often breakdown that occurs immediately after any large disaster before the established state and national organizations which properly take charge of such situations arrive on the scene.

The function of this organization is primarily to furnish immediate medical relief in the interval before the usual organizations arrive.

It is suggested to be effective only in case of unusual disaster such as distructon and suffering produced by cyclones, tornadoes or floods.

The plan has in mind disasters of such magnitude which break down the ordinary machinery for giving relief.

It is expected that this organization shall co-operate both before and after their arrival with state and federal organizations and with the Red Cross.

The plan then would be that the American Medical Association would direct relief through the County Medical Society, its president assuming the role of director or generalissimo, he having the privilege of calling to his assistance such of his colleagues as he may deem necessary, they to function under his supervision.

The state director of disaster relief would be the president of the State Society.

The national director of disaster relief would be some one at national headquarters such as the secretary of the Association who should act with the aid and advice of the President of the Association. Upon recommendation of the committee on reports of officers the report of the Board of Trustees on medical relief in disaster was unanimously adopted.

Resolution introduced by Dr. George E. Fallansbee, Ohio deploring the present court proceedure in presenting expert opinion evidence in both civil and criminal cases, and recommending that it favors the use of experts appointed by the court as a corrective to present abuse; that it believes the expert opinion witness should be allowed to present and read a written opinion based on examination and not on a hypothetic question; that fees due expert opinion witnesses appointed by the court should be fixed by the court, and taxed as part of the cost in the case, was after considerable discussion unanimously adopted.

We commend to you for your perusal the complete minutes of the House of Delegates as found in the April 24th and May 1st editions of the Journal of the American Medical Association.

The medical profession of Dallas exhibited the usual

southern hospitality, a feature of which was the feeding of about 6,000 persons at a huge barbecue at which 16 prime Texas steers were the victims.

Your delegates were present and active at all the sessions of the House.

The following officers were elected by the House of Delegates:

President—Dr. Jabez N. Jackson, Missouri.
Vice President—Dr. John O. McReynolds, Texas.
Secretary—Dr. Olin West, Illinois.
Treasurer—Dr. Austin A. Hayden, Illinois.
Speaker—Dr. F. C. Warnshuis, Michigan.
Vice Speaker—Dr. Allen H. Bunce, Georgia.

Member Board of Trustees—Dr. Charles W. Richardson, District of Columbia; Dr. Joseph A. Pettit, Oregon; Dr. J. H. J. Upham, Ohio; Dr. Rock Sleyster, Wisconsin.

Washington, D. C., was selected as the place for holding the 1927 meeting.

All of which is respectfully submitted.

Carl F. Moll,
C. S. Gorsline,
A. W. Hornbogen,
Geo. E. Frothingham,
J. D. Brook.

Speaker King: This report is referred to the Business Committee.

UNFINISHED BUSINESS

Under unfinished business we have amendments to Constitution lying over under the rules.

Dr. Hugh Stewart, of Flint, offered the following amendment to Section 2, Article VII, of the Constitution: "That the Secretary-Editor shall be elected by the House of Delegates at each annual meeting." This amendment under the rules was to lie over until the next annual lesson.

What is your pleasure in regard to this amendment?

Dr. Biddle: Mr. Speaker and Members of the House of Delegates: I want to speak to you as seriously as it is possible for me to speak. I want to speak to you on account of the many honors which you have conferred upon me, that is to say in one capacity or another I have had the privilege of serving you for 25 years. The House elects the different members of the Council, it gives to those members the highest possible privileges, but with that it fails in its highest possible responsibilities. It is a very serious matter that the Council should have an executive officer, a man of its own choosing. I want to say to you in all seriousness from the long experience I have had. I believe the working of that Council and the benefits to this Society depend upon the active co-operation and the close connection between the Council and its executive officer. Therefore, I plead of you that you will not amend this article. What have we done in the last 25 years better than any state in the union, and to whom do we owe that? We owe it to the Council; we owe it to men of the Council. I have nothing but the good of my Society, which I love, at heart; I really believe that it is best to leave the choice of the executive officer, who should not be a year to year man, but some one who has vision and can carry out the instructions, in this House of Delegates. Therefore, with that I plead of you that this amendment be defeated. (Applause).

Speaker King: Is there any further discussion?

Dr. R. L. Clark (Wayne): I move it be permanently laid on the table.

.... The motion was supported by Dr. Dibble, of Wayne, and carried....

Speaker King: The next amendment is by Dr. J. D. Brook, of Grandville, the Chairman of the Committee to revise the Constitution. Article V, House of Delegates, Section 1, shall be changed to read, "The legislative powers of this Society shall reside in the House of Delegates. The House of Delegates shall transact all the business of the Society not otherwise specifically provided for in the Constitution and By-Laws, and shall elect the general officers who shall hold office for one year."

Is there any discussion?

Dr. Biddle: What does that mean? The gentleman back of me thinks that has to do with the election of the president of the Society.

Secretary: The original provision reads as follows: "The legisative power shall reside in the House of Delegates. The House of Delegates shall transact all the business of the Society not otherwise specifically provided for in this Constitution and By-Laws and shall elect the general officers except the President."

The amendment is "The legislative powers of this Society shall reside in the House of Delegates. The House of Delegates shall transact all the business of the Society not otherwise specifically provided for in the Constitution and By-Laws and shall elect general officers who shall hold office for one year."

Dr. Biddle: What do they say beneath that, doctor? They say that the president shall be elected in the general session.

Secretary: Article VII, Section 2, says the President and Vice-President shall be elected for a term of one year.

Dr. Biddle: What does it say further?

Speaker King: "Article VII, Officers, Section 4; Nominations for President shall be made from the floor at the first general meeting. He shall be elected by ballot of the majority present. The ballot boxes shall be kept open during meeting hours between the first and second general session."

Dr. Biddle: That isn't a general meeting.

Dr. Hornbogen: Mr. Speaker, I think Dr. Biddle misunderstands the office of president is filled at the general meeting of the entire Society and the House of Delegates.

Dr. Biddle: I see that, but the man from the upper peninsula says no. He is wrong.

Dr. Hirschman: I maintain there is a conflict in the two paragraphs. The amendment specifically leaves out the words "except the President." while in the Constitution they are there. I can read it either way. If it means all general officers, it includes the president in the amendment as offered; if it expected the president, it would say so. It carefully omits that paragraph.

Speaker King: It would seem to me from reading Article VII, Section 4, that nominations for President shall be made from the floor of the first general meeting. That does not mean the House of Delegates. "He shall be elected by ballot of the majority present. The ballot boxes shall be kept open during meeting hours between the first and second general session." It seems to me they conflict, as I see it.

Dr. Clark: Mr. Speaker, in order to be able to bring this before the House so we can do it in a representative way, I move this be permanently laid on the table.

Dr. J. D. Brook (Kent): Mr. Speaker, I think before that motion is made I should be allowed the privilege of the floor, because I brought up this matter a year ago. I don't know how it happened, but got hold of this copy of the Contitution, I don't know whether any of the other members have a copy of it. Somebody gave it to me in Muskegon last year.

During some of the idle moments that I had to peruse this, I thought I found some articles that conflicted. As a matter of fact, I found that they did conflict. I brought in no resolution, but, as those of you will remember who were there, I came before the House and asked for an explanation of these various conflicts. Nobody came forward with any explanation, but instead some one made a motion to have a committee appointed to iron out these conflicts.

A committee of five was appointed and instructed to report at once. We went into an adjoining room, considered these things very hastily, and I was instructed as chairman of that committee to bring in the report which is printed in your handbook today. When I brought this matter before the House, I had absolutely nothing in mind other than to have the Constitution straight and correct so that any one reading it could see what there was in it. There are conflicts in this Constitution. I think it was asking a little too much of that committee last year to ask it to report within a very few moments after going over this as hastily as we did. I don't think that this report really is what it ought to be. Certainly this Constitution should be so fixed that there are no conflicts in it. I hadn't in mind any particular officer or any particular set of officers whom have wanted to oust from the authority of the Council and place in the House of Delegates, that wasn't my object at all.

This Constitution was adopted two years ago at Mt. Clemens, if you will remember. The year previous this House adopted a motion or resolutions that we have a revision of our whole Constitution. A committee was appointed of which Dr. Manwaring was chairman. The committee labored long and hard to revise our old Constitution. When we came to Mt. Clemens, Dr. Manwaring had a report of a revised constitution for submission and adopted by the House of Delegates. The Council came along, Dr. Jackson as Chairman, and stood beside Dr. Manwaring with a lot of amendments to this constitution as presented by Dr. Manwaring, which were substitutions for this revised constitution. As they were read, the House of Delegates adopted them, and in doing so in their haste these inconsistencies came into the Constitution. That is my interpretation of them.

My idea in bringing this matter before the House last year was simply to straighten out the Constitution and I think that if you want to do anything, you should refer this back to a committee, possibly some other committee, and give them a little longer time to straighten this thing out as it ought to be.

Speaker King: Is there any further discussion? Is that in the form of a motion, Dr. Brook?

Dr. Brook: I move you that a special committee be appointed to further go into this Constitution and see if it can be ironed out.

Dr. Biddle: To report next year?

Dr. Brook: No, I think there is time enough to report this year. Let them report at the evening session.

Dr. Frank W. Garber, Sr. (Muskegon): Mr. Chairman, I think we are going to get into the same difficulty again if we attempt to have this reported back this evening. This House of Delegates is asked to pass upon something that a committee has spent some time working out, several hours perhaps, or longer. We are in no condition to pass upon something which the committee themselves have given considerable thought to. I think the thing should be referred to a committee to iron the matter out and copies of the Constitution, with the proposed amendments should be sent to the members for the coming meeting in order that each member may carefully study the thing and come here prepared to vote on it properly.

Dr. Nathan B. Colvin (Oakland): I believe it is no more than fair for the committee to have more time. If this isn't a legislative body, what is it? I move they be given the time they wish, and if they can report tonight, do so. If they want more time, we can give it.

Speaker King: The Chairman suggests that there isn't any particular haste in determining the various features of this Constitution or amendment to the Constitution, and I believe that the Council would probably have a better opportunity of straightening this thing out than any one particular committee. I simply offer that as a suggestion.

Dr. Colvin: Is the Council a part of the legislative body of this Society?

Speaker King: Yes, sir.

Dr. Colvin: Is it made up of two bodies?

Speaker King: No, it is simply a matter of revising the Constitution if we see fit; it is simply a suggestive matter and not a legal matter.

Dr. Brook: I take exception to the Speaker's remarks. The Constitution provides specifically that the Constitution shall be adopted by the House of Delegates and not by the Council.

Speaker King: I am afraid, Dr. Brook, that you misunderstood what the Speaker had to say: I didn't make any crack that the Council should adopt the Constitution, but simply that the Council should try to revise it and have it adopted by the House of Delegates.

Dr. Brook: Mr. Speaker, may I ask if the Council is any better able to do this, or are they any better constitutionalists than any members of the House of Delegates?

Speaker King: I am sorry, but I would hate to answer the question. (Laughter).

Secretary: Dr. Brook, is your motion now before the House that the Speaker shall appoint a special committee that shall bring in revisions of conflicting articles and paragraphs of the

Constitution and By-Laws and report to the House this evening?

Dr. Brook: Yes, sir.

Dr. H. B. Gardner (Wayne): Mr. Chairman, I support that.

Dr. Brook: Mr. Speaker, the reason I make that motion and say this evening is this: I don't think it is any more unreasonable to adopt a few articles in the Constitution than it is to adopt regularly right off-hand articles presented to this House of Delegates by the Council without having them read once.

.... The motion was carried.....

Speaker King: In view of the fact that the job was so efficiently carried out by the previous committee, I will appoint as Chairman, Dr. Brook; Dr. Biddle is a hard working man, so we will give him a job, and Dr. Hirschman, who is a politician.

Dr. Hirschman: I want to thank the Speaker for representing the upper peninsula.

Dr. Brook: Mr. Speaker, I have never shirked any duty in this House of Delegates, but I don't believe that it is exactly fair to put me on two hard working committees. I understand that you have placed me on this other committee, which is a special committee, and I ask, therefore, to be excused.

Speaker King: All right, Dr. Brook, the excuse is accepted. We will put on Dr. Dibble.

Dr. Dibble: I am not a delegate.

Speaker King: Dr. Moll will be glad to work on that. Dr. Moll is the Chairman of the committee in view of the fact that he takes Dr. Brook's place.

Are there any resolutions to be offered to the House? Any new business?

Secretary: Mr. Speaker, for the information of the members of this House of Delegates, the arrangement for this annual meeting and the sessions of the House of Delegates was provided for by the Council. The Council, after a considerable discussion of the time of holding the various sessions of our annual meeting, thought that it would be highly desirable if the House of Delegates could meet on one day and complete its work during that day, thereby permitting its members to attend the various scientific meetings and sections and not compel them to get up at 7 o'clock in the morning to attend an early meeting of the House of Delegates. I desire to make the explanation that it is the privilege of the House to make its own rules and order of business, and if there are any delegates who desire a session of the House of Delegates, either tomorrow or Thursday, it is their privilege by motion to designate such time.

It is also proper for the House, under the provision of our Constitution and By-Laws under which our election of officers shall come at the last session of the House of Delegates (and it states in there on the last day of the annual meeting), to offer a resolution that the order of business be altered. You have a right to do that so that your election of officers may come this evening.

Then as far as the rest of your program is concerned, the other sessions of the House are at 2 o'clock this afternoon and the final one at 7 o'clock this evening. That should be a part of your official minutes that you have changed the date and hour of election of officers so as not to conflict with your Constitution and By-Laws.

Dr. Gardner: I will make that as a motion.

.... The motion was supported by Dr. Hirschman, and carried....

Speaker King: The next order of business is a motion to adjourn.

Is there any new business or resolutions to be offered?

....It was regularly moved, seconded and carried that the meeting recess until 2 o'clock. The meeting recessed at 12 o'clock.

TUESDAY AFTERNOON, SEPTEMBER 14, 1926

The second session of the House of Delegates was called to order by Speaker King at 2 o'clock.

Speaker King: Please come to order.

Secretary: Mr. Speaker, I hold in my hand the signed roll call of a quorum for the House. I move you it constitute the roll call for the second session of the House of Delegates.

....The motion was supported by Dr. Bidle and carried....

Speaker King: We shall now hear a supplementary report from the Chairman of the Credentials Committee.

Dr. J. H. Dempster (Wayne): There are six new names that have been added to the list of delegates since morning, making a total of 57.

Speaker King: If there are no objections, this report will be accepted.

Are there any reference committees ready to report? I understand the report of the Business Committee will come at 7 o'clock.

UNFINISHED BUSINESS

Secretary: There is none upon the desk, Mr. Speaker.

Speaker King: New business. Has any member any new business to introduce?

Secretary: I might say, Mr. Speaker and Members of the House of Delegates, this is the last opportunity under your rules, having but one more session tonight, to introduce new business. If any delegate has anything to bring before the House of Delegates regarding matters in his county or regarding matters concerning the State Society as a body, now is the time to bring it up, or if he desires information upon any problems or questions now before the State Society or his County Society concerning matters in Michigan, now is the time for him to bring it up.

Dr. William J. Cassidy (Wayne): Mr. Chairman and Members of the House of Delegates: There has been a great deal of talk, especially in our lower peninsula, particularly in Wayne, as regards the methods by which the University hospital has been managed in connection with the admission of patients. University hospital, as we understand it, will admit patients as charity patients and charge them up to the state. There should be no reason why the University hospital should admit pay patients and charge them to the medical profession. Why should the medical profession pay taxes to support the state hospital and then allow an individual who is worth $150,000 or $200,000 to go to that hospital and have an operation and be charged a fee which goes to the hospital? That is radically wrong as far as the profession is concerned, it seems to me. I would suggest that this ought to be investigated to see what is being done.

The situation in Detroit is getting to be such between two hospitals that the people are running wild, and they are not the people who are charity cases. The charity cases stay in the city in a great many instances and are being taken care of by the medical profession in the city and the adjacent members, who are devoting their time for nothing. The coal man and the man who sells bread and the lawyer and other fellows get paid for their services and the poor doctor works for nothing. If he has nothing when he passes away, he is put in the potter's field.

That is one of the situations where I think the medical profession is very, very lax. It is very beautiful, it is an altruistic method, but it takes dollars to buy bread for your children and you have to look out for yourself and your family in later periods of life. It seems to me we are doing too much work for the state and the community at large for which we receive absolutely nothing, and other departments are not doing what they should for the same and are being paid for the very same services which you are performing for absolutely nothing.

Now if the tenet upon which this is based at the present time is that of experience only, then the idea on which your men are appointed, gentlemen, is wrong; that is the attending surgeon or physician in any one of your major hospitals is appointed so he can get experience. Gentlemen, he was appointed upon a wrong basis, for he has already had his experience, or he shouldn't be the head of his department if he doesn't have it.

That is the situation you have to consider. It is getting more and more serious throughout the state and throughout the country. Hospitals are springing up, charity cases are coming in—misplaced charity in a great majority of instances, and there is no way of checking it up. These people run loose; social service workers can't check them up. The boards of health are running the same way, there is no way of checking the patients up. We see the thing continuously day after day.

Some of our polyclinics charge $10 for a circumcision. A good many young men will do a circumcision for $10 and be tickled to death to get it. That is the condition running rampant throughout the country. Who is saddling the expense? The medical profession themselves. It is taking the dollar from the average doctor, not from the big fellow who has a practice, he doesn't care, but it is the little fellow who loses out.

That situation is becoming more serious since you have the large University hospital at Ann Arbor. You see it time and time again. People whom you know have lots of money are going out there and getting work done either for a mediocre fee or they are being charged a very fair operative rate. Who gets the money? The state of Michigan, I understand. Why should the state of Michigan get it? You are helping to support the state of Michigan and the state hospital, why shouldn't the individual be made to go to a private doctor and allow him to pay his taxes to the state of Michigan in proportion.

I move that a committee be appointed to investigate these things throughout the state and report to the Society so that some measure can be taken along this line to check some of the things which are done, not from the period of charity but from the period of mistaken and unchecked up social service work.

.... The motion was supported by Dr. Dutchess, of Wayne ....

Dr. James D. Bruce (Washtenaw): If I understand the motion, Mr. Chairman, it has to do with the establishment of a definition of the word "charity" as applied to medical and surgical service as well as a checking up of all hospitals in the state in regard to the development of charitable work or what is interpreted as charitable work in the institutions now. Is that it?

Dr. Cassidy: Yes, sir. If an individual supporting his family is buying a home, a piano, an automobile any many other articles upon the instalment plan, he is spread out so thin that he can't take care of his average medical bill. Why should the doctor be the goat? That is what I would like to understand, what you classify as charity.

Dr. Bruce: I would like it to appear that that is the purpose of the motion: what is meant, what is the usual conception of the word "charity" with reference to medical and surgical work in hospitals within the state.

Dr. Biddle: Isn't that matter defined in a legal way?

Dr. J. L. Crum (Kalamazoo): In the beginning of your remarks, you referred directly to the University of Michigan hospital; in summing up your motion, you made no reference, at least no special reference to the University of Michigan hospital. I wish we could have some definite knowledge from the University of Michigan as to how they accept their patients and who they bar from that hospital and who they do not bar. As I understand it, a charity case going to the University hospital should have the sanction of the Poor Commissioner from the county from which he goes. I don't think that that is lived up to in the University hospital at this time.

Dr. Bruce: In a general way only, Mr. Speaker, I would like to say this: I am not prepared to state on just what terms patients are received in the hospital, but I recall a figure Dr. Hains gave that might be of interest with reference to the percentage of patients received in the University hospital. If I remember correctly, it was something like 2.59% of those received at the University hospital who were received as pay patients and definite specific fees charged them.

With reference to the general policy, I haven't the authority nor am I prepared to say what is being done at the University hospital.

Dr. John N. Bell (Wayne): I have recently been informed that any taxpayer in Michigan has a legal privilege of going to the University of Michigan hospital and having treatment free. I should like very much to know if that is so.

Dr. H. J. Pyle (Kent): Mr. Speaker, I think Dr. Cassidy's motion is rather indefinite. If this attention is to be directed to the University hospital, why not make the motion to read that way? We are getting up here and asking questions. The committee will investigate that and be able to answer questions. If

Dr. Cassidy will so state his motion that this attention is being directed to the University hospital, then we may get a definite report if a proper committee is appointed.

Speaker King: Is there any further discussion?

.... The motion was carried ....

Speaker King: The committee will be appointed at the evening session.

Is there any unfinished business?

Dr. Gardner: Mr. Chairman, there is one little matter I would like to bring to your attention. There have been a good many prosecutions made in the state of Michigan where quack doctors have been brought before the courts, and they get around it by bringing into the court some registered physician who can display his diploma. At the present time our medical laws are so lax that we have been unable to punish such a man for his offense. Until our laws are changed so that he can be notified of his offense and if he doesn't correct it and get out of business. his diploma will be taken from hm, this will continue to go on.

It would be a simple thing if we could get through a little legislation in that way, and we could wipe out a large number who are in the pernicious business of advertising and getting away with it simply by having somebody connected with them who is registered.

Speaker King: I believe the point is well taken. Last year a short paper which I read, the annual address, had to do with the parallel cases of doctors and lawyers. If a lawyer is crooked, is guilty of malpractice, he is disbarred. I don't see why the medical profession can't take the same stand. I stated that last year. I think Dr. Gardner takes it very well. He takes the proper stand in the matter. We should have some legislation whereby malpractitioners, crooked doctors, quacks, advertisers, could be disbarred from the practice of medicine.

Secretary: Mr. Speaker, I am authorized by the Chairman of the Council and the members of the Council to convey in somewhat of a confidential manner to the members of the House of Delegates the information that at the noon session of this Council, a fund was created by which the Executive Committee of the Council might take steps to protect the health of the public of Michigan. That is a diplomatic wording of a resolution which has beneath it a basic intent that is going to meet the point brought up by the genetleman from Wayne. In other words, your Council is now seeking to enter into a plan or a campaign of activity that is going to extend beyond educating the doctor and making him a better practitioner, one which will also protect his physical needs and unjust competition against him.

You know the difficulty encountered to secure evidence and present it to a prosecuting attorney to cause the issuance of a warrant; you can't do it unless you go down into your own pocket for it. Your state Council has now created a fund whereby such evidence is going to be secured, and we are going to try to show some activity to protect your physical as well as your mental welfare. (Applause).

Dr. Hirschman: In that connection, might I offer a motion such as this: that the Secretary, be instructed by the House of Delegates to gather such pamphlets and advertising matter as are being issued by individuals or institutions in the state of Michigan who are holding themselves up publicly by various types of advertising matter to treat and cure disease?

.... The motion was supported by Dr. Gardner ....

Dr. Brook: In regard to what Dr. Warnshuis has just said, I want to echo something from the last A. M. A. meeting. During a visit with members of the Association and during discussion, the matter of bringing culprits to justice was brought up. When I returned I spoke to Dr. Warnshuis about the possible feasibility of the state society employing an individual to look up evidence against these individuals because that is the sticker every time. Evidently he has brought it to the attention of the Council and they are going to get busy.

Speaker King: There is a motion before the House. Is there any further discussion?

.... The motion was carried ....

Speaker King: Is there any other new business?

Secretary: Mr. Speaker, the provision of the Constitution and By-Laws is that when terms of office of members of the Council expire the delegates from the Councilor Districts concerned shall be called into caucus by the state Secretary and make nominations to the House for election of members of the Council to succeed those whose terms expired. In compliance with that regulation of our By-Laws, and in view of the fact that the terms of office of the Councilors from the Fourth, Fifth or Sixth Districts expire with this meeting and new Councilors are to be elected, I would call in caucus the members of the Fourth District, that is the delegates from Allegan, Berrien, Cass, Kalamazoo and Van Buren Counties in this portion of the room after adjournment.

The members of the Fifth District, including Barry, Ionia, Kent and Ottawa Counties, will meet in this corner.

The members of the Sixth District, including Clinton, Genesee, Livingston and Shiwassee Counties, will meet in the center of the room in order that they may caucus and present nominations of Councilors to be submitted to the House of Delegates this evening.

Dr. B. F. Greene (Hillsdale): Mr. Chairman, I have some names to present as Councilor of the Second District. I would like to present two names for honorary membership in the Michigan State Medical Society. These names have been voted on by the Ingham County Society. They are Dr. Freeman A. Jones and Dr. Robert E. Miller. I move they be made honorary members of the Michigan State Medical Society.

Secretary: Mr. Speaker, that reference should go to the Council, and the Council in

turn will make a report upon it this evening. Then it will be presented to the House for election.

Dr. Brook: Mr. Speaker and Gentlemen of the House of Delegates: I have had in mind for a couple of years a little proposition which Michigan does not now have. In Illinois they have been carrying on this thing for some two or three or four years. Michigan has a good many distinguished practitioners, along with some others, like myself, probably not so distinguished. We have no historical data of Michigan physicians available. A couple of years ago I wrote to the Michigan Historical Commission asking for information, if they had any, and they replied saying that they had none. I told them my idea and they in turn replied they would be glad to co-operate and give us any assistance they possibly could in compiling a history of Michigan physicians. I think if a volume or two or three of that nature could be compiled they would be of immense value, particularly to future generations. We have men who have made history, not only for Michigan but throughout the world. I was again reminded of it this morning when Dr. Beaumont's name was mentioned.

To that end, gentlemen, I would like to move that a committee of five be appointed by the Speaker to devise ways and means by which a history of Michigan physicians may be brought about and reported at the 1927 House of Delegates.

.... The motion was supported by Dr. Hornbogen and carried....

Dr. Crum: Would it be out of order to request the committee of the Council to investigate the advisability of a re-registration of doctors in Michigan? Some of the eastern states, of which New York is one, I believe, have recently taken that step. If we are to clean up Michigan, there are a good many men in the medical profession now who possibly would be put on their toes if they felt they had to come before a committee for re-registration the same as barbers and beauty practitioners and so on, after a certain term of years. At the present time a man can get his diploma, never attend a medical meeting, never buy a new book or magazine and practice medicine until he is 70 years old. In the eyes of the board he is as much an authority as any man who keeps up to date. I would like to make a motion that the committee of the Council that is investigating this other matter of illegal practitioners report on the advisability of re-registration of doctors.

.... The motion was supported by Dr. Pyle, and lost....

Speaker King: If there is no other business we will recess until 7 o'clock tonight.

Speaker King: Is there any other new business?

The House will meet again at 7 o'clock.

.... The meeting recessed at 2:40 o'clock....

RECESS

TUESDAY EVENING, SEPTEMBER 14, 1926

The Third Session of the House of Delegates was called to order by Speaker King at 7:15 o'clock

Speaker King. This session will please come to order.

We will hear the report of the Reference Committee or Business Committee, please.

Dr. W. E. Collins (Kalamazoo): I don't see any of the other members, but I will do the best I can with the work as we took it up.

In the first place, we want to discuss briefly the report of the Council. They made a recommendation for election to honorary membership the following:

Dr. Mabb, Ottawa.
Dr. Ralph Spencer, Kent.
Dr. Dd Emmett Welsh, Kent.
Dr. Stoddard, Muskegon.
Dr. Quick, Muskegon.
Dr. Cramer, Muskegon.
Dr. Ralston, Wexford.

This Committee wishes to recommend the election of these men.

Secretary: Mr. Speaker and Mr. Chairman: May I interrupt the Chairman while he is making that report? The Council tenders additional nominations for honorary membership as follows:

Dr. F. A. Jones, Lansing.
Dr. Robert E. Miller, Lansing.
Dr. Eugene Smith, Detroit.
Dr. J. E. Clark, Detroit.
Dr. C. B. Stockwell, Port Huron.
Dr. G. S. Ney, Port Huron.
Dr. T. A. Felch, Ishpeming.

These additional nominations are made for election of honorary members.

Dr. Collins: In the Council report was a special article from Dr. Darling, the President. We wish to call special attention to this, relative to the suggested tuberculosis program. We recommend that the Council be authorized to confer with the proper University officers and also with the State Department of Health, looking toward the establishment of a course for health officers and others connected with this health program.

We also recommended favorable action of the following projects suggested by the Council:

1. That each county society subscribe for from 100 to 500 copies of Hygeia, to be placed in public reading rooms, schools and factories;
2. That each county society adopt and carry out the minimum program for county meetings;
3. That the Council be authorized to undertake measures for the enforcement of our state medical laws;
4. That the Council be authorized to perfect the state Red Cross Disaster Relief Organization in conformity with the recommendation of the A. M. A.;
5. That the Council be authorized to institute plans that will lead to the establishment of a postgraduate school at our University where our members will be accorded opportunity for continued study;
6. That the Council be authorized to organize a Women's Auxiliary as endorsed by the A. M. A.

We recommend the adoption of the report of the delegates to the A. M. A.

The Public Health Committee. This Committee stresses the necessity for better control of the open case of tuberculosis and recommends the establishment of more hospitals for its accomplishment and that every county shall spend a least $200,000 for a tuberculosis hospital.

Another solution suggested was the furnishing of competent health officers to supervise and train physicians to treat these people and nurses to care for them.

Attention of the Council is called to the fact that this Committee desires the subject matter of this re-

port to be placed before the next legislature. Our committee, however, questions the advisability of suggesting that every county spend at least $200,000 for a tuberculosis hospital. We recommend that the cooperation of the state tuberculosis society and the Department of Health be sought in these matters.

The Tuberculosis Committee recommendations are covered by the remarks of Dr. Darling under the head of the tuberculosis program embodied in the report of the Council. We recommend the adoption of this report.

Standard Insurance Reports Committee. Wthout any particular comment the committee recommends the adoption of this report.

The Committee on Medical Education. We wish to heartily commend the work of this Committee and feel that this plan should be continued; to this end we suggest that the Council of the State Society cooperate in every way possible with the present Committee.

Venereal Prophylaxis. There was no report this year from this Committee, and our Committee regrets that some action has not been taken on Dr. Wile's previous report.

Committee on Nursing Education. The Chairman of this Committee came over here expecting to correct some mistakes that got into the printing, but he didn't get a chance to do it. He wanted us to mention the fact that there were some mistakes.

The Committee discusses the various phases of this question and ends the report with a recommendation of the Lovett report, which is essentially as follows: "The Committee is of the opinion that the primary requirement of the present situation is the formulation and adoption of a standard minimum curricula for the training of the bedside nurse of private practice. The curriculum should be such that it could be carried out by relatively small hospitals away from medical centers.

"That a committee for this important and responsible work be appointed containing in its membership physicians who are competent clinical teachers, representative nurses and at least one educator, neither a physician nor a nurse. This committee should be arranged for by the Michigan State Nurses' Association and the Michigan State Medical Society, having equal representation and appointing its own representatives."

We recommend in this connection that the President appoint such a committee of two members from our State Society to act with the two members from the State Nurses' Association, these to name a fifth member of this committee.

"That after a proper time, training schools which do not conform to the scheme outlined by such committee should be classed and published as schools not accepted by whatsoever body, committee and organization is made responsible for the matter.

"That the educational requirement for admission to the training school shall, as soon as possible, be made four years of high school.

"That the course for the bedside nurse of private practice be made two years and four months.

"That necessary changes in legislation be adopted to conform to the shortened course.

"That subsidiary nursing be favored and adopted and be subject to the same committee or organization recommended which should formulate for it the standard minimum course of the same simple character as the one prescribed for the bedside nurse.

"That the post-graduate facilities be provided for the nurse who has graduated from the 28 months course and who desires to qualify herself for special nursing or for teaching.

"That the nurses' training must be regarded as a serious educational program, requiring more time for educational work and some reduction in her time in non-educational ward routine.

"That the better standards of teaching shall be required in the improved schools for both physicians and nurses.

"That the last two mentioned items will mean increased expenses to the hospitals maintaining training schools; but that in the end more serious results and greater expense will accrue to three hospitals unless something is done to remedy the conditions now prevalent in our state."

The Committee wishes to recommend the adoption of this report entirely.

Regarding the place of meeting, as the Council desires an expression from the House relative to holding our next annual meeting at Mackinac Island, the Committee feels there should be a discussion by the delegates here and if necessary a vote be taken to give the Council the information they desire.

That is the report of the Business Committee, composed of Cole, Wenger, Osborne, Mercer and Collins.

Speaker King: What is your pleasure with the report of this Business Committee?

Dr. Kimzey: I move it be accepted.

.... The motion was supported by Dr. Gorsline and carried ....

Secretary: Mr. Speaker, the second part of the Committee's report is a recommendation as to the place of holding our next annual meeting. They desire a discussion of that part by the members.

Speaker King: Do we hear anything in regard to the idea of going to Mackinac for the next annual meeting? Is there any discussion?

Dr. Hornbogen: Mackinaw City or Mackinac Island?

Speaker King: Mackinac Island.

Secretary: For the information of the delegates, would you like to hear the proposition that has been submitted to us by the management of the Grand Hotel?

This is an invitation from the Grand Hotel at Mackinac Island, Michigan, requesting the honor of entertaining the Michigan State Medical Society in 1927.... Secretary read the letter ....

Dr. Hornbogen: Mr. Speaker, although the island of Mackinac now belongs to the state of Michigan and not to the upper peninsula of Michigan, I remember the day when they put up a monument to Beaumont, that man who made history in regard to the gastric juices, and his name will go down in history. I understand that it is the object of this Association to place a memorial tablet of bronze on this monument that we put on the Island of Mackinac 27 or 28 years ago. I think the proper thing to do is to instruct your Council, which, as I understand under the new Constitution that I helped put through, is entitled to designate the city where the convention should go. I for one of the upper peninsula of Michigan would like to have you meet at Mackinac Island. I do not consider for one moment that you can beat the program that is to be put across in June, providing it does not conflict with any other meeting. I understand it will not because the American Medical meets in May this year on account of going to Washington. June will be the ideal month at Mackinac Island.

I move you that you, the House of Delegates,

recommend to the Councilors that they choose the Island of Mackinac on the dates specified by your honored Secretary. (Applause).

Dr. H. R. Carstens (Wayne): Mr. Speaker, the program of possible events which our Secretary has read to us, and which delegate Hornbogen, of Marquette, has elaborated upon slightly, is indeed a charming one. I think lots of us would find Mackinac delightful. One question has arisen and this is how about the month of June? Has any correspondence taken place concerning a possible meeting in September? The A. M. A., I believe, meets in May in Washington. In June there are many other things taking place, college commencements, alumni meetings, clinic week in Detroit, physicians' families are getting ready to leave the city, and so on. I was wondering whether any discussion or correspondence had been had regarding another time for the meeting.

Dr. Hornbogen: The summer of the upper peninsula of Michigan begins on the twenty-fifth day of July and absolutely ends on the thirteenth day of August. If you want to face anything in September, go up there and freeze to death. I just came from there. (Laughter).

Speaker King: Is there any further discussion?

Dr. Brook: Mr. Speaker and Members of the House of Delegates: I think the point made by Dr. Carstens is well taken. We should consider that in June there are numerous activities in regard to school closings and graduations and things of that kind which a number of the men of the state Society wish to attend. The week of graduation of a great many schools is particularly the week of June 14th and June 17th. I think that would be a very inopportune time to hold a state meeting. Probably it would be better to hold it in August before the 13th, or whatever date the honorable gentleman from the northern peninsula designated.

Dr. Hornbogen: Mr. Speaker, may I answer my sidekick, J. D. Brook? My dear friend, J. D., you and I have kicked together 10 years in the American Medical Association. You know that when we went to New Orleans we went in April: you also know when we went to Dallas, Texas, we went in April. When we go to Washington, we go in May; when we go to St. Louis we go in May. When we go to Chicago we go in June. When we went to San Francisco, we went in June. We have never been separated for 10 years.

Here is the point that I want you to stop and consider, that is the absolutely unqualified invitation extended by the biggest hotel on Mackinac Island. They cannot take us at the height of the season. They cannot take us during the hay fever season, so we as humble citizens of the state of Michigan must accept their proposition or name some other town in the lower peninsula that wants this organization. That is my answer to you. (Laughter).

Speaker King: Did I hear anybody second the motion of Dr. Hornbogen?

....The motion was supported by Dr. Walker, of Wayne....

Dr. Hornbogen: I will make the motion to accept the invitation from the Grand hotel at Mackinac Island on the dates specified in their letter, June 14 to 17, 1927.

Dr. Brook: Mr. Speaker, if I may speak once more, my honorable friend Hornbogen has no children who graduate from school and, consequently, it doesn't make any difference to him whether he goes out during the period from June 14 to June 17 or from December 14 to December 17. I think it does make a difference to some other individuals. I think probably if we could get the week following the dates specified, it would be acceptable to a larger number of individuals.

Dr. Roger V. Walker (Wayne): Mr. Speaker, June has 30 days. It just might happen that the week after or the week before this date there will be some other colleges that have commencement. Somebody is going to be out anyway. That is just something to think about. You have to take the time that is most opportune.

Dr. Brook: Mr. Speaker, the 14th to the 17th, as I understand it, is in the beginning of the season. Why not have it the latter end of the season, the latter part of August? That is nearer the date we are holding our present meeting.

Dr. Hornbogen: Mr. Speaker, may I answer that question in just one moment?

Speaker King: Glad to hear you talk, go ahead.

Dr. Hornboken: I came by Mackinac Island last night. The latter part of the season it is filled with hay feverites and you can't get in. The only dates that you can accept are the dates that have been specified by this hotel. If you want to make a change in this, the proper thing to do is have some city from the lower peninsula of Michigan extend an invitation to this organization, and I will back you up.

Dr. Crum: You wouldn't get a baker's dozen there anyway at any time of the summer. We have talked over the policy of holdlng meeting of the state Society in different towns to stimulate interest. We went to Muskegon and had 27 at the House of Delegates. Here we have 57 or 58. I think for the best interests of the Society, if the meetings of the Society are of any good to the Society, any good to the membership, we should hold the meeting in one of the three or four large towns in the center of Michigan. (Applause).

Dr. Hornbogen: Dr. Crum, I believe. May I have the floor a moment?

This matter that you speak about recently came up at Menominee in the upper peninsula of Michigan in regard to the Upper Peninsula Medical Society. That is an old, old question. Personally, I believe that every meeting of the American Medical Association should be held in the city of Chicago because it is centrally located. When we go to Boston, when we go to Washington, Atlantic City, New Orleans, Portland, or San Francisco, we only have a regional number of members, we have the old bunch who always go. The same thing exists in your state medical society.

I advocate that all the meetings of the state medical society of Michigan should be held at Detroit or Ann Arbor where we have the clinical facilities and all those things, but it can't be done. We have tried that in the American Medical Association. They are trying to work it out in the Upper Peninsula Medical Society. That is one of the things that cannot be done.

Don't think for one single instant that I want the meeting to go to Mackinac Island. You can have it in any town in the lower peninsula. I have been working on this little game you are thinking about for 25 years, and so far we have been unable to accomplish it in the American Medical Association. As long as we cannot accomplish it there, I don't think that the state Medical Society of Michigan can do it nor the Upper Peninsula Society. Recently in the Upper Peninsula Society I have opposed my bosom friend, T. W. Scholtes, of Munising, and tonight I have opposed my personal friend of a great many years' standing, J. D. Brook, but I am talking for a principle

and not for friendship's sake. J. D. and I will remain friends just the same no matter what I say or what he says. The point is that this cannot be done. So if this Society wants the meeting at Mackinac Island, they should have it there; if not, the Speaker should call for another invitation.

Dr. Biddle: The Council decides that.

Dr. Hornbogen: I know the Council decides it, I explained that in a former talk.

Dr. Gardner: I will admit there are things to consider on both sides. I don't believe that we will get the crowd at Mackinac Island that we might get in some of the other towns. There are one or two things we should take into consideration. On account of the Beaumont affair it is a fitting place to hold the meeting. There is a little history connected with it.

Gentlemen, we have got to give and take. We can't have everything our own way. The proposition that has been made to us tonight is certainly a wonderful one when you consider the prices and when you consider what they are giving us. I want to say to you the management of that hotel is certainly going some and giving us a wonderful, liberal offer. We will get wonderful entertainment there. It will be a wonderful place and there is a lot of history connected with it. Those who go will certainly get the worth of their money, there is no question about that. I think the boys ought to all make an extra hard effort to turn out and go up there.

There is another thing, it will perhaps be an incentive to the boys of the northern peninsula to unite with us, and there will be a larger representation from the northern peninsula than we have ever had before. We have to give and take; we can't get it in Detroit or some other place near us. Let's get out and do our part of the work and try to help out. I realize what has been said tonight is the essence of truth, it may inconvenience us, but let's push that aside and get out and go up there.

Dr. H. D. Robinson (Manistee): This matter of attending medical conventions is not a matter of just feelings. I don't know one-tenth of these men around here in this neck of the woods. Up in Manistee we drive down 200 miles in the morning to one of these meetings. Take a train and go up there and see that part of the country. Hornbogen comes down here every time to the State Medical Society, I see his genial face right on the map every time. Brook comes, too. Why? Because they have an interest in this medical Society. We can go up there just as well as they can come down here. We can go there as well as we can go to Detroit. I had to go to Mt. Clemens last year and it was incovenient to get there, but I went just the same. Hornbogen was there just the same.

.... The motion was carried ....

Secretary: Mr. Speaker, the Council, by reason of certain local conditions recommends to the House that you authorize the transfer of Livingston County from the Sixth District to the Fourteenth District. This would bring the members of Livingston County in association with the Washtenaw County Medical Society, of which Society the majority of the doctors in Livingston County are now members. The Livingston County Society is not active and has been a part of the Sixth District, which is out of the range, really, of the Councilor of the Sixth District. Therefore, the Council recommends that you authorize the transfer of Livingston County to the Fourteenth District.

Dr. Biddle: I make such a motion.

.... The motion was supported by Dr. Yates, of Wayne ....

Dr. Biddle: Is that at their request?

Secretary: At their request and at the request of the two concerned Councilors.

.... The motion was carried ....

Speaker King: We will hear the report of the Special Committee on Legislation, Dr. Brook.

.... Dr. Brook read the report ....

SPECIAL COMMITTEE ON NATIONAL LEGISLATION

The material referred to your Committee consists of the following submitted by Dr. Wm. C. Woodward, Executive Secretary Bureau of Legal Medicine and Legislation A. M. A.

1st. "An act to safeguard the distribution and sale of certain dangerous caustic or corrosive acids, alkalies and other substances in interstate and foreign commerce." Your Committee gives endorsement to this bill, and recommends that a similar bill be introduced in the State Legislature.

2nd. An act to authorize for the fiscal years ending June 30, 1928 and June 30, 1929, appropriations for carrying out the provisions of the act entitled "An act for the promotion of the welfare and hygiene of maternity and infancy and for other purposes." This act is the so-called Shepherd-Towner law upon which the A. M. A. has gone on record as being opposed and your Committee do so recommend.

3. A bill to amend an act entitled "An act to provide for the registration of, with collectors of internal revenue, and to impose a special tax upon all persons who produce, import, manufacture, compound, deal in, dispense, sell, distribute or give away opium or cocoa leaves, their salts derivatives or preparations and for other purposes, as amended. Your Committee recommends that the Society go on record as opposed to this bill as amended.

4. "An act to regulate the practice of chiropractic; to create a Board of Chiropractic Examiners of the District of Columbia and to punish persons violating the provisions thereof." Your Committee is whole-heartedly opposed to this bill and do so recommend.

Your Committee further recommends that each Councilor of the State Society shall be entrusted with the duty of enlisting the aid of the medical profession of his district to protect or approve individually and collectively by either letter or telegram to their senator and representative as per the recommendations of this report.

A. P. Biddle,
C. C. Clancy,
J. D. Brook.

Dr. Brook: Mr. Speaker, I move the adoption of this report.

.... The motion was supported by Dr. Wilson, of Wayne, and carried....

Speaker King: We will hear the report of the Committee on Amendments and Changes in the Constitution and By-Laws

Dr. Carl Moll (Genesee): Mr. Speaker and Members of the House: Your Committee begs to report as follows: After conferring with Dr. J. D. Brook, former chairman of this committee, we find through a typographical error the clause "except the President" was omitted after the words "general officers" in the text of the next to the last line, first paragraph of his report, amending Article V, Section 1 of the Constitution. Inasmuch as Article VII, Section 4, is in conflict with the above paragraph, it should be omitted from the committee's report.

There is also a further typographical error in Chapter VII, Section 3, which was intended to read, "Chapter VI, Section 3.

This we believe clarifies the situation.

Respectfully submitted.

(Signed) A. P. Biddle,
L. J. Hirschman,
C. F. Moll.

Speaker King: What is your pleasure with this report?

Dr. Kimzey: I move it be accepted.

.... The motion was supported by Dr. Crum, and carried....

Speaker King: We want a report of the Nominating Committee at this time.

NOMINATIONS

Dr. Harry F. Dibble: We recommend the following for Vice-Presidents:

1st—E. I. Carr.
2nd—W. J. Cassidy.
3rd—V. Y. Fisher.
4th—J. J. Haviland.

For the three delegates to the A. M. A.:

1st—C. S. Gorsline.
2nd—L. J. Hirschman.
3rd—George Frothingham.

For Alternates:

1st—A. W. Hornbogen.
2nd—C. E. Boys.
3rd—J. G. R. Manwaring.

Speaker King: What is your pleasure with the report?

Dr. Clark: I move you that the report be adopted.

Dr. Pyle: I was almost pained not to hear the name of Dr. J. D. Brook on the list of A. M. A. delegates. I don't know by what order of business this can be changed . May I ask the Chairman of this Committee how many members were present?

Dr. Dibble: Four.

Dr. Pyle: That was due to the fact that one man elected this morning by three votes over a man from Kent was not there. This represents the thought of four men, not five. With all due respect to this committee, the way I read it these delegates to the A. M. A. are all from Wayne. More strength to Wayne! I certainly haven't any feeling toward any of the names mentioned. When they omit a man's name like the name of Dr. J. D. Brook, a general practitioner, my conferrer from Kent, a man in all sincerity who has done more for organized medicine in a quiet way than any other (the only time he gets noisy is when he talks to Hornbogen), I feel pained. If there is some order of business by which this can be rejected and we can have a discussion of thought, I move you this report be not adopted as read.

Dr. Hornbogen: Pyle from Kent, you have, as I understand, the regulations and rules of Robert's Rules of Order and the organization of the State Medical Society of the state of Michigan under which to nominate J. D. Brook as a delegate to the American Medical Association in spite of this Nominating Committee, who brought in an adverse report to J. D. Brook. If you will get up and make that motion, let's hear it.

Dr. Pyle: Mr. Speaker, I don't care to make a motion. Let me add another thing: these men are all from Wayne. (Cries of "No"). We have one member by virtue of our Secretary being a member. I understand he turned his work over to an alternate. I feel western Michigan should be represented. I put the welfare of the Michigan State Medical Society above everything else and, secondly, my friendship for Dr. Brook, who has worked hard and sincerely. I would like to see somebody nominate him.

Dr. Hugh Stewart (Genesee): I move Dr. J. D. Brook be named as delegate to the A. M. A. Dr. J. D. Brook has done probably more work than any man in this room for the medical profession in the state of Michigan. You are not recognizing Kent County in any way, because Dr. Warnshuis, by virtue of the office of Secretary, stepped out and allowed an alternate to take his place. For that reason I think Kent County should be recognized in some way, and for that reason I nominate Dr. J. D. Brook as a delegate to the A. M. A.

.... The nomination was supported by Dr. Southwick, of Kent....

Secretary: Mr. Speaker, as a matter of interpretation the members of the House of Delegates should consider the Nominating Committee's report as simply placing in nomination these men and does not prevent any delegate from submitting additional nominations before the ballot is spread. You don't adopt the report and elect these men by simply adopting that report; you spread your ballot.

The first ballot, Mr. Speaker, is for the four Vice-Presidents. The Nominating Committee has nominated—

E. I. Carr,
W. J. Cassidy,
A. F. Fisher,
J. J. Haviland.

The question before the House is what do you want to do with the nominations.

Dr. Hugh Stewart (Genesee): I move those men be elected as the four Vice-Presidents of this organization.

.... The motion was supported by Dr. Dempster and carried....

Dr. Hornbogen: I understand there is a nomination before the House of J. D. Brook, made by Dr. Hugh Stewart.

Dr. Hugh Stewart: I nominated J. D. Brook as a delegate to the A. M. A.

Dr. Hornbogen: Thank you. I want to second the nomination of J. D. Brook. J. D. Brook and I have fought for 10 years side by side in the American Medical Association and we have put Michigan on the map. Now if it is up to the delegates of this State Medical Society to turn down J. D. Brook, turn him down; but you want to remember that the

other states, Illinois, Ohio, Iowa, New York, Pennsylvania, keep their delegates in for 15 to 20 years. It takes at least five to ten years to get your acquaintanceship in order to do anything. Everything that has been done for 10 years in the American House of Delegates has been done by my friend, J. D. Brook. (Applause).

Speaker King: Four names for delegates to the A. M. A. will be ballotted upon.

Dr. Phil Quick (Eaton): Mr. President, we are a long way from the seat of trouble and we feel as though we are entitled to a little representation. It is the old proposition of taxation without representation. I wish to place in nomination a man who probably is the father of organized medicine in the upper peninsula. He goes around to the various county societies, stimulates them, does everything possible to help organized medicine. He has been a delegate to the American Medical Association, and every one knows what he has done. He has put Michigan on the map in the American Medical Association and has kept her there. I wish to nominate Dr. A. W. Hornbogen, of Marquette.

....The nomination was seconded by Dr. Robinson....

Speaker King: The following men are nominated as delegates to the A. M. A.

Gorsline,
Hirschman,
Frothingham,
Brook,
Hornbogen.

I will appoint Dr. Kimzey, Dr. Yates and Dr. Dempster as tellers.

Vote for three of the nominees on the board.

...The ballot was spread...

Speaker King: Has every one voted? I declare the ballot closed.

Dr. C. C. Clancy (St. Clair): In looking over the Constituton and By-Laws, I find in Chapter III, which relates to the duties of the House of Delegates, Section 6, paragraph d, page six, which I shall read: "It shall elect delegates to the American Medical Association in accordance with the ruling of the parent organization."

I want to ask the Speaker of the House of Delegates of the American Medical Association what the rules of that organization are that we must follow.

Secretary: Mr. Speaker and Members of the House of Delegates: The rules of the American Medical Association in regard to the constituent members that compose its House of Delegates are that at each triennial meeting of the American Medical Association a special committee apportions the various constituent State Societies' delegates according to their numerical membership in good standing. Second, a delegate must have been a Fellow of the A. M. A. for at least two years. That is the only rule that governs the House of Delegates of the Michigan State Medical Society. We are entitled to five delegates, elected by our organization, according to our numerical strength. Two terms do not expire at this time.

Speaker King: Does that settle the question, Dr. Clancy?

Dr. Clancy: Yes.

Speaker King: I will ask the Secretary to read the result of the ballot.

Secretary: The result is as follows:

Dr. Gorsline, 37 votes.
Dr. Hirschman, 35 votes.
Dr. Frothingham, 34 votes.
Dr. Brook, 36 votes.
Dr. Hornbogen, 25 votes.

According to that, Dr. Gorsline has the highest number of votes; Dr. Brook, second highest with 36; and Dr. Hirschman, third with 35.

The next is the election of three alternate delegates. You have before you the nominations of:

A. W. Hornbogen,
C. E. Boys,
J. G. R. Manwaring.

Dr. Biddle: I move the Secretary cast the ballot for these three nominees.

....The motion was supported by Dr. Walker, of Wayne, and carried....

Secretary: Mr. Speaker, in compliance with the provision of our By-Laws whereby the state Secretary shall call caucuses of delegates of Councilor Districts to nominate Councilors in place of those whose terms expire, I report to you that the delegation of the Sixth District, composed of the several societies, nominates Dr. Cook, of Flint, to succeed Dr. Randall as Councilor of that District.

The Fourth District nominates Dr. C. E. Boys to succeed Dr. J. B. Jackson as Councilor of that District.

The delegates of the Fifth District nominate Dr. B. R. Corbus to succeed himself as Councilor of that District.

Dr. Biddle: I move the Secretary cast the ballot for those men.

....The motion was supported by Dr. Kimzey, of Wayne, and carried....

Secretary: Mr. Speaker, your Secretary does so cast the ballot of the entire House of Delegates for A. W. Hornbogen, C. E. Boys and J. G. R. Manwaring as alternate delegates to the American Medical Association, and for Dr. Cook, Dr. Boys and Dr. Corbus as Councilors of their respective districts named.

Speaker King: I declare these men elected.

Dr. Hugh Stewart: I wish to place in nomination the name of Dr. J. E. King, of Detroit, for Speaker for the ensuing year.

Dr. Crum: I nominate Dr. West, of Painesdale.

Dr. Dibble: I nominate Dr. Carstens.

Dr. Bell: I move the nominations be closed.

....The motion was supported by several members, and carried....

Secretary: The nominees are King, of Detroit, and West, of Painesdale.

Speaker King: I wonder if the same tellers will act this time again.

Dr. Hugh Stewart: Mr. Speaker, can a man withdraw his own name under the rules?

Speaker King: He may do so, but it isn't necessary for us to accept it. (Laughter).

.... The ballot was spread ....

Speaker King: Has every one voted? I declare the ballot closed.

Mr. Secretary, will you please announce the result of the ballot?

Secretary: Mr. Speaker and Members of the House: The following is the result of your ballot: King receives 14 votes and West, 26, and Carstens, 16.

Speaker King: Dr. West, then, is declared elected to the difficult task of Speaker of the House.

Dr. Brook: Mr. Speaker, according to our Constitution and By-Laws we are working under Robert's Rules of Order and that necessitates a majority for an election. Dr. West has received less than half. He is, therefore, not elected, in my opinion.

Dr. Biddle: Mr. President, I move that Dr. West be elected to this office.

.... The motion was supported by Dr. Hafford....

Dr. Hornbogen: As I understand it, that motion would have to be unanimous in order for him to be declared elected.

Speaker King: Let's have the unanimous vote for Dr. West. All in favor say "aye"; contrary.

Dr. Hornbogen: No.

Speaker King: The motion is carried. Dr. West is declared unanimously elected by the House.

Dr. Hornbogen: I beg to rise to a point of order. Your decision is absolutely incorrect. It requires a majority vote of every member in the House in order to abrogate the rules of Robert's Rules of Order, and we are working under those rules.

Speaker King: Wasn't that unanimous.

Dr. Hornbogen: No, it was not.

Speaker King: The next order of business is unfinished business.

Dr. Biddle: How about a Vice-Speaker?

Speaker King: Nominations are in order for Vice-Speaker.

Dr. Walker: Mr. Speaker, I would like to nominate Dr. Henry Carstens for Vice-Speaker.

.... The nomination was supported by Dr. Moll....

Dr. Kimzey: I move the nominations be closed.

Dr. Wilson: I move the Secretary cast the ballot of the House of Delegates for Dr. Henry Carstens as Vice-Speaker.

.... The motion was supported by Dr. Colvin, and carried....

Secretary: Mr. Speaker, your Secretary does so cast.

Speaker King: Dr. Henry Carstens is declared elected Vice-Speaker of the House of Delegates for the coming year.

Dr. Hornbogen: You still have to elect a Speaker.

Speaker King: We don't need any extra speakers.

The next order is unfinished business.

Dr. Hornbogen: Mr. Speaker, you still have to elect a Speaker of the House, according to Robert's Rules of Order. If you gentlemen intend to run this organization absolutely in disregard to Robert's Rules of Order, you are absolutely doing wrong. I am as great a friend of Dr. West's as any one who ever lived; I backed him twice for the presidency of this organization and all that kind of thing, but I say what you have done is absolutely irregular. There is no rule in Robert's Rules of Order that will bear you out, regardless of the Speaker of this House.

Dr. Brook: Mr. Speaker and Gentlemen of the House of Delegates: For 20 years I have consecutively represented my county society in this House of Delegates, one year of which you honored me as your Speaker. For the past 10 years you have honored me as one of your delegates to the American Medical Association. I want to take this opportunity of expressing to you my sincere and whole-hearted thanks for the honor you have again conferred upon me in electing me as a delegate to the American Medical Association. I thank you not for the duty which you have imposed upon me, but for the expression of confidence you have given me. I trust that I may prove true to that expression of confidence. I thank you. (Applause).

Speaker King: Unfinished business, please.

The Chairman of the Council has something to communicate.

Dr. John B. Jackson: Mr. Speaker, there was one matter in the report of the Council which the Business Committee did not report on which we considered rather important. I should like to call attention of the House to this paragraph before you adjourn and ask you to take some action on the matter. Let me read this paragraph.

The Council has investigated whether it is possible to receive bequests and endowments for funds from which the proceeds will be employed for the furtherance of post-graduate work. We are advised by competent legal authority that our articles of incorporation will not permit us to create such a fund in the name of the State Medical Society. The Society, however, can arrange a trustee group of three or five members and this trusteeship may receive such funds and appropriate these proceeds from this fund to the work of furthering medical education in Michigan.

The Council would be very happy if the House of Delegates saw fit to authorize them to create such a trusteeship.

Dr. Wilson: Mr. Speaker, I move that the Council be instructed to create a board of trustees to handle trust funds, endowment funds, for the State Medical Society.

.... The motion was supported by Dr. Hornbogen and by Dr. Gorsline, and carried....

Speaker King: A motion to adjourn is in order.

Dr. Biddle: Weren't there some committees to be appointed and announced this evening?

Secretary: The committee that the Speaker was authorized to appoint was to investigate the matter that was brought up by Dr. Cassidy under new business this afternoon. The motion was that the Speaker appoint this committee.

Dr. Biddle: Isn't it usually the custom for the next Speaker to appoint the committees?

Speaker King. He doesn't have anything to do until the next meeting.

Speaker King: I think on account of the fact that this apparently is of a good deal of interest to the profession in Michigan, I will hesitate and make appointment a little later.

Dr. Hornbogen: The time is now, because the man who hesitates is lost.

Secretary: Mr. Speaker, before the House adjourns, I would like to make a little announcement regarding the meetings tomorrow and what has been provided for our entertainment this year.

.... Secretary Warnshuis made several announcements in connection with the program....

Secretary: The Ingham County Medical Society has provided a number of entertainments for the members who are present here, and I think you will find that they are very active in trying to make this one of the best meetings that we have. It would be very amiss indeed if this House of Delegates, the expressing body of our Society, adjourned without passing a vote of resolution of thanks for the splendid and wonderful arrangements that have been perfected for this our 106th annual meeting.

Speaker King: I should be glad to entertain such a motion.

Dr. Biddle: I make such a motion.

.... The motion was supported by Dr. Chester, of Detroit, and carried....

Speaker King: All in favor of this motion say "aye"; contrary. It is carried.

Is there any other business before we adjourn?

Dr. Biddle: I move we adjourn.

.... The motion was supported by Dr. Kimzey and carried....

Speaker King: Before we adjourn, I want to thank you for your co-operation and, as the bum actor said, for the laugh I picked up once in a while.

.... The meeting adjourned sine die at 8:45 o'clock...

Adjournment.

F. C. Warnshuis, Secretary.

GENERAL SESSION

WEDNESDAY EVENING, SEPTEMBER 15, 1926

The first General Session of the 106th Annual Meeting of the Michigan State Medical Society was called to order by President C. G. Darling, of Ann Arbor, in Prudden Auditorium, Lansing, Michigan, at 8:20 o'clock.

President Darling: The meeting will please come to order.

The audience will please rise while we have the invocation by Rev. Frank Kingdom, of Lansing.

Rev. Frank Kingdom: Our heavenly Father, we thank Thee that Thou has put us not into a lonely world, but that Thou has put us into a world of people, of people whom we can help, of people who can become our friends. We thank Thee that Thou hast crowned our human lives with this sublime experience of friendship and of service. For these men who are giving their lives to the alleviation of physical suffering, we return our thanks to Thee, and upon us all we pray Thy blessing that with a new tenderness as well as with a new skill we may bring whatever gift we may have to the service of those who suffer; in Jesus' name. Amen.

President Darling: The next order of business will be an address of welcome by Fred L. Seger, President of the Ingham County Society. (Applause).

Dr. Fred L. Seger: Members of the Michigan State Medical Society and Guests: It is my very great pleasure and honor to extend to you the cordial welcome of the members of the Ingham County Medical Society. There are in this society 100 members and its committees have been very busy for some time past making plans for the successful entertainment of this convention. We sincerely hope that you will have much pleasure as well as profit in your visit to Lansing.

It may be of interest to recall that this inland city was first selected as the capital of Michigan in 1847 and was called Village of Michigan. The name was subsequently changed to Lansing in 1849 by a legislative act.

We hope as you go about Lansing that you will be proud of Michigan's capital city. We hope that you will visit the three state schools within our borders, the Michigan State College, which is the oldest and largest land grant college in the world, the Michigan State School for the Blind and the State Vocational School for Boys.

We are also proud of industrial Lansing, it being made famous as the home of the first practical mechanical moving automobile. We have over 14,000 people on the industrial pay rool. We have an $8,000,000, school system free of debt.

As a medical center Lansing is fortunate in having two fully equipped 100-bed hospitals, a sanitarium and a contagious disease hospital. Lansing also is fortunate in having located here the laboratories of the Michigan State Department of Health whose personnel is highly qualified and ever ready to serve all the physicians of the state.

We hope that you will take advantage of the willingness of our committee members to serve you. Again, I welcome you to all the pleasures and privileges of Michigan's capital city. (Applause).

President Darling: We thank you for this welcome.

We have been going about Lansing and we never knew that by an act of legislature this had been established some years ago, we thought it had always been here. You know people get that idea about Lansing, that it has always been right here. We haven't been to the hospitals today, we haven't even been to select our automobile today, but we are enjoying the hospitality of Lansing to its fullest extent as it is handed out to us by the physicians and friends here.

Thank you. (Applause).

Secretary Warnshuis: The Michigan State Medical Society has been in existence 106 years, and this is our 106th annual meeting. During that term of years we have had many distinguished and noble presidents, men whom we have always pointed to with pride and whose leadership we have always subscribed to with unstinted support. Particularly this year have we been fortunate in having as a leader a man who is a friend of the profession as well as a friend of the people, who has occupied and held many a distinguished position in this, our commonwealth of Michigan. It is, therefore, with particular pleasure that I introduce to you tonight our retiring President, Dr. C. G. Darling, of Ann Arbor, who will now deliver his annual address. (The audience arose and applauded).

.... President Darling read his address .... (Applause) [See Original Articles].

President Darling: We have with us tonight one of the most sincere men in Michigan. I say that because of his great sincerity, not because there are no other sincere men, and I want you to accept that as my rating of his sincerity. He will talk to you about the increasing responsibility of the medical profession. I have the pleasure of introducing to you Dr. Little, President of the University of Michigan. (The audience arose and applauded) [The Address will be published in the November issue].

President Darling: We will now entertain nominations for President of the Society.

NOMINATIONS FOR PRESIDENT

Dr. Herman Ostrander, Kalamazoo:

Mr. President and Fellow Members of the State Medical Society, I feel greatly honored being privileged to place in nomination the name of a man to be elected to the office of President of our State Society. This man needs no introduction to this audience of doctors. As an individual practitioner he has made a reputation for himself that is enviable. His record as a public health worker is beyond question. His interest in Medical Societies has been one of sustained activity. As a man who has served as Councilor and as Chairman of the Council he has repeatedly demonstrated to you his intense and sincere interest in the welfare of our Society. Known therefore as he is to you, we honor ourselves as in turn we honor him by electing him to this high office. I therefore place in nomination, Mr. President, Jackson of Kalamazoo. Applause.

President Darling: Are there any other nominations?

Dr. B. A. Shepard (Kalamazoo): I second the nomination.

Dr. H. E. Randall (Flint): I desire to second the nomination of Dr. Jackson.

President Darling: Are there any other nominations? Hearing no others, I declare the nominations closed. (Applause).

Dr. T. S. Langford (Washtenaw): Mr. President, I move the Secretary be instructed to cast the unanimous ballot of the Society for the election of Dr. Jackson, of Kalamazoo.

....The motion was seconded variously and carried....

Secretary: Mr. President, I do so cast the entire vote of the registered membership of your state Society for Dr. J. B. Jackson as your President for the ensuing year. (Applause).

President Darling: The meeting is adjourned.

.... The meeting adjourned at 9:30 o'clock.

THURSDAY MORNING, SEPTEMBER 16, 1926

The Second General Session of the Michigan State Medical Society was called to order at 11:50 o'clock in the ball room of Hotel Olds, Lansing, by Secretary Warnshuis.

Secretary: Gentlemen, will you be seated for a moment? This is a mere matter of constitutional provision. We are supposed to have a second general session, and it has been customary at this general session to present the President-elect, the new incoming President to office.

Mr. President, I have to report to you that the unanimous vote of the 627 registered members was cast in favor of Dr. J. B. Jackson as President for the ensuing year.

President Darling: This is very good information that we have, Mr. Secretary, and I think it is something with which we all agree. I have the honor of presenting to you the President-elect, Dr. Jackson, of Kalamazoo. (Applause).

President-Elect Jackson: Mr. President, I thank the Michigan State Medical Society for the honor which they have given me. I appreciate the responsibility which goes with the honor. I appreciate the responsibility especially following as I do a man who is so universally beloved by the medical profession of the state and who has such a wide vision of our problems and their solution as Dr. Darling. I can only promise I will do the best I can to serve you as the President of the Michigan State Medical Society. (Applause).

.... The meeting adjourned at 12 o'clock....

Adjournment.

F. C. Warnshuis, Secretary.

REGISTRATION

Our total registration was 626 represented by Counties as follows:

ANNUAL MEETING REGISTRATION

Alpena County—2

O'Donnell, F. J., Alpena.
Williams, C. M., Alpena.

Northern Michigan—5

Chapman, W. Earle, Cheboygan.
Duffie, Don H., Central Lake.
Mayne, Fredcrick C., Cheboygan.
McKillop, A. J., Wolverine.
VanLeuven, B. H., Petoskey.

Barry County—7

Brown, C. K., Nashville.
Cross, Maurice Y., Delton.
Keller, Guy C., Hastings.
Lathrop, C. P., Hastings.
McIntyre, C. S., Hastings.
Morris, E. T., Nashville.
Swift, B. C., Middleville.

Bay County—3

Baird, Fred S., Bay City.
Urmston, Paul R., Bay City.
Williams, Mary A. W., Bay City.

Benzie County —1

MacKenzie, Robert G., Frankfort.

Berrien County —8

Bartlett, H. G., St. Joseph.
Ellet, W. C., Benton Harbor.
Giddings, Burton D., Niles.
Henderson, Robert, Niles.
McDermott, John J., St. Joseph.
Rutz, Lawrence M., Niles.
Snowden, Robert H., Buchanan.
Westervelt, Herbert O., Benton Harbor.

Branch County—2

Bien, Walter, Coldwater.
Schultz, Samuel, Coldwater.

Calhoun County—45

Abbott. Nelson, Marshall.
Barnhart, S. E., Battle Creek.
Byland, Nils O., Battle Creek.
Chauncey, E. M., Albion.
Church, S. K., Marshall.
Colver, Burton N., Battle Creek.
Cooper, J. E., Battle Creek.
Eaton, S. R., Battle Creek.
Eggleston, Elmer L., Battle Creek.
Elliott, James A., Battle Creek.
Fraser, Robert H., Battle Creek.
Gordon, J. K. M., Battle Creek.
Gorsline, C. S., Battle Creek.
Hafford, G. C., Albion.
Hale, Claude E., Marshall.
Harris, Rowland H., Battle Creek.
Haughey, W. H., Battle Creek.
Haughey, Wilfrid, Battle Creek.
Heald, C. W., Battle Creek.
Heyzer, H. A., Albion.
Hills, Carlon R., Battle Creek.
Holtom, Benjamin George, Battle Creek.
Keeler, K. B., Albion.
Knapp, Harry B., Battle Creek.
Leach, Mary Dryden, Battle Creek.
Lowe, H. M., Battle Creek.
MacGregor, A. E., Battle Creek.
Mortensen, M. A., Battle Creek.
Nelson, A. W., Battle Creek.
Nielsen, Evelyn O., Battle Creek.
Nielsen, J. M., Battle Creek.
Norman, Estella G., Battle Creek.
Olsen, Alfred B., Battle Creek.
Pritchard, Stuart, Battle Creek.
Riley, William H., Battle Creek.
Rosenfeld, J. E., Battle Creek.
Russell, Edwin P., Battle Creek.
Serio, Philip P., Albion.
Selman, B. L., Battle Creek.
Stewart, Charles E., Battle Creek.
Stone, Ray C., Battle Creek.
Stegman, Louie V., Battle Creek.
Van Camp, E., Battle Creek.
Walters, F. R., Battle Creek.
Wencke, Carl G., Battle Creek.

Cass County—3

Green, George W., Dowagiac.
Loupee, Sherman L., Dowagiac.
McCutcheon, W. C., Cassopolis.
Bellinger, Ernest G., DeWitt.
Bell, W. S., Elsie.
Abbott, Vernon C., St. Johns.
Frace, Guy H., St. Johns
Hart, Arthur O., St. Johns.
Ho, Thomas Y., St. Johns.
Luton, Frank E., St. Johns.
McWilliams, William B., Maple Rapids.
Schemer, Ernest, Fowler.
Scott, W. A., St. Johns.

Eaton County—12

Burleson, A. H., Olivet.
Dean, C., Eaton Rapids.
Hargrave, Don V., Eaton Rapids.
Huber, Charles D., Charlotte.
McCoy, Earl M., Grand Ledge.
Meyer, H. R., Potterville.
Quick, Phil H., Olivet.
Rickerd, Vinton J., Charlotte.
Sackett, C. S., Charlotte.
Sassaman, F. W., Charlotte.
Stimson, C. A., Eaton Rapids.
Welch, Rolland A., Bellevue.

Genesee County—41

Auld, D. V., Flint.
Bird, William G., Flint.
Bogart, Leon M., Flint.
Burr, C. B., Flint.
Chambers, M. S., Flint.
Charters, John H., Flushing.
Clark, C. P., Flint.
Covert, F .L., Gaines.
Cook, Henry, Flint.
Curry, George J., Flint.
Avers, J. W., Flint.
Goering, George R., Flint.
Gutov, Isadore, Flint.
Himmelberger, R., Flint.
Johnson, Frank D., Flint.
Knapp, H. D., Flint.
Knapp, H. W., Flint.
Knapp, Mark S., Flint.
LeGalley, K. B., Flint.
McGarry, B. G., Fenton.
McArthur, Arthur, Flint.
Malfroid, B. W., Flint.
Macduff, R. Bruce, Flint.
Marshall, W. H., Flint.
Merritt, C. V., Flint.
Miner, F. B., Flint.
Moll, Carl F., Flint.
Ira D. Odle, Flint.
Orr, J. W., Flint.
Probert, C. E., Flint.
Randall, H. E., Flint.
Reeder, Frank E., Flint.
Rowley, James A., Flint.
Scott, R. D., Flint.
Stewart, Hugh A., Flint.
Streat, R. W., Flint.
Treat, David L., Flint.
Wall, William J., Flint.
White, H. T., Flint.
Winchester, W. H., Flint.
Willoughby, G. L., Flint.

Gogebic County—1

Tew, W. Ellwood, Bessemer.

Grand Traverse-Leelanau—4

Inch, George F., Traverse City.
Murphy, Fred E., Cedar.
Sladek, E. F., Traverse City.
Way, Lewis R., Traverse City.

Gratiot-Isabella Clare—17

Barstow, W. E., St. Louis.
Budge, Melvin J., Ithaca.

Burt, C. E., Ithaca.
Carney, Thomas J. Alma.
DuBois, Charles F., Alma.
Gillett, J., Weidman.
Graham, F. J., Alma.
Hall, B. C., Pompeii.
Highfield, E. M., Alma.
Hobbs, Alton Deane, St. Louis.
Howe, L. A., Breckenridge.
Hubbard, M. C., Vestaburg.
Lamb, E. T., Alma.
Robinson, Bradbury N., St. Louis.
Smith, R. B., Alma.
Street, E. L., Wheeler.
Young, W. G., Shepherd.

Hillsdale County—6

Bowee, Charles T., Hillsdale.
Green, Burt F., Hillsdale.
Hamilton, H. S., Reading.
Johnson, J. H., Hillsdale.
Miller, Harry C., Hillsdale.
Sawyer, Walter H., Hillsdale.

Houghton County—1

Ellis, William H., Hancock.

Ingham County—85

Bartholomew, H. S., Lansing.
Bauch, G. F., Lansing.
Benning, C. H., Lansing.
Behen, William C., Lansing.
Brucker, Karl B., Lansing.
Bruegel, O. H., East Lansing.
Burdick, Austin F., Lansing.
Cameron, W. T., Lansing.
Byington, G. M., Charlotte.
Campbell, A. M., Lansing.
Carbaugh, Harriet M., Lansing.
Carr, E. I., Lansing.
Christian, L. G., Lansing.
Cushman, Frank J., Lansing.
Culver, Sidney H., Mason.
Darling, L. H., Lansing.
Deacon, W. J. V., Lansing.
DeVries, C. F., Lansing.
Doyle, C. P., Lansing.
Drolett, Fred J., Lansing.
Dunn, F. C., Lansing.
Dunkin, L. S., Williamston.
Ellis, C. W., Lansing.
Foust, Earl H., Lansing.
Freeland, O. H., Mason.
French, Horace L., Lansing.
Garner, George L., Lansing.
Goldner, R. E., Lansing.
Galbraith, D. A., Lansing.
Gardner, Cyrus B., Lansing.
Gauss, Charles B., Lansing.
Hart, L. C., Lansing.
Haze, H. A., Lansing.
Heckert, Joseph K., Lansing.
Henry, Leonard L., Lansing.
Hermes, E. J., Lansing.
Hill, S. R., Lansing.
Holm, Marinus L., Lansing.
Huntley, Fred M., Lansing.
Huntley, Victor L., Lansing.
Hurth, M. S, Lansing.
Jones, Freeman A., Lansing.
Jones, Francis, Lansing.
Kalmbach, R. E., Lansing.
Kennedy, W. R., Lansing.
Loree, Maurice C., Lansing.
Ludlum, L. C., Lansing.
Martin, E. L., Lansing.
McConnell, E. G., Lansing.
McCorvie, Ray, East Lansing.
McIntyre, J. Earl, Lansing.
McNamara, W. E., Lansing.
Miller, Harold A., Lansing.
Mullett, J. H. F., Williamston.
Olin, R. M., Lansing.
Osborn, Samuel, Lansing.
Owen, Arthur E., Lansing.
Owen, John S., Lansing.
Peacock, T. L., Lansing.
Pinkham, R. A., Lansing.
Randall, O. M., Lansing.
Rockwell, H. C., Lansing.
Ruch, Flora H., Lansing.
Rulison, John G., Lansing.
Russell, C .V., Lansing.
Seger, Fred L., Lansing.
Shaw, Milton, Lansing.
Smith, H. M., Lansing.
Snell, D. M., Lansing.
Snyder, LeMoyne, East Lansing.
Stonehouse, G. G., Lansing.
Stucky, George C., Lansing.
Strauss, P. C., Lansing.
Towne, Lawrence C., Lansing.
Turner, Frank W., Lansing.
Vander Slice, E. R., Lansing.
VanderZalm, T. P., Lansing.
Warford, J. T., Lansing.
Weinburgh, H. B., Lansing.
Welch, W. H., Lansing.
Willson, Howard S., Lansing.
Wight, W. G., Lansing.
Wiley, Harold W., Lansing.
Yerkes, Louis N., Mason.

Jackson County—17

Bulson, A. E., Jackson.
Clarke, Corwin S., Jackson.
Cooley, R. M., Jackson.
Corley, C., Jackson.
Dengler, Charles R., Jackson.
Finton, Walter L., Jackson.
Hicks, Glenn C., Jackson.
Hungerford, P. R., Concord.
Hurley, Harold L., Jackson.
Lewis, E. F., Jackson.
Leahy, Edward, Jackson.
Ludwick, J. E., Jackson.
McGarvey, W. E., Jackson.
Munro, C. D., Jackson.
Robinson, D. E., Jackson.
Smith, John C., Jackson.
Thayer, Earl A., Jackson.

Kalamazoo-Allegan-VanBuren—22

Barrett, F. Elizabeth, Kalamazoo.
Boys, C. E., Kalamazoo.
Brunson, E. T., Ganges.
Collins, Ward E., Kalamazoo.
Crane, A. W., Kalamazoo.
Crum, Leo J., Kalamazoo.
Crowell, F. B., Lawrence.
DenBleyker, Walter, Kalamazoo.
Fast, Ralph B., Kalamazoo.
Jackson, John B., Kalamazoo.
McNabb, Arthur A., Lawrence.
Ostrander, Herman, Kalamazoo.
Penoyar, F. C., South Haven.
Rigterink, H. A., Kalamazoo.
Rogers, L. V., Galesburg.
Shepard, B. A., Kalamazoo.
Smith, Malcolm, Allegan.
Stewart, John D., Hartford.
Van Ness, J. H., Allegan.
Walter, R. J., Saugatuck.
Wilbur, Edward P., Kalamazoo.
Young, William Rae, Lawton.

Kent County—59

Baker, Abel J., Grand Rapids.
Andersen, E. B., Grand Rapids.
Bettison, William L., Grand Rapids.
Blackburn, H. M., Grand Rapids.
Boet, Frank A., Grand Rapids.
Breakey, Robert S., Grand Rapids.
Brook, J. D., Grandville.
Brotherhood, James S., Grand Rapids.
Butler, William J., Grand Rapids.
Butterfield, A. C., Grand Rapids.
Campbell, Alexander M., Grand Rapids.
Corbus, Burton R., Grand Rapids.
Currier, Fred P., Grand Rapids.
Denham, R. H., Grand Rapids.
Dodge, W. T., Grand Rapids.
Failing, John F., Grand Rapids.
Gillett, Orla H., Grand Rapids.
Hardy, Faith F., Grand Rapids.
Huizinga, J. C., Grand Rapids.
Hyland, William A., Grand Rapids.
Johnston, Collins H., Grand Rapids.
Karshner, Clyde F., Grand Rapids.
Lamb, G. F., Grand Rapids.
Larned, Frederick J., Grand Rapids.
Lanting, D. B., Byron Center.
Lieffers, Harry, Grand Rapids.
McRae, J. H., Grand Rapids.
Maurits, Reuben, Grand Rapids.
Miller, Margaret A., Grand Rapids.
Moll, A. M., Grand Rapids.
Moore, V. M., Grand Rapids.

Morrill, Donald M., Grand Rapids.
Nesbitt, E. N. Grand Rapids.
Pyle, Henry J., Grand Rapids.
Richards, R. G., Grand Rapids.
Rogers, John R., Grand Rapids.
Roller, Louis A., Grand Rapids.
Schnoor, Elmer W., Grand Rapids.
Smith, A. B., Grand Rapids.
Smith, Edwin M., Grand Rapids.
Smith, Ferris, Grand Rapids.
Smith, R. Earle, Grand Rapids.
Snapp, Carl F., Grand Rapids.
Southwick, George H., Grand Rapids.
Spencer, Ralph H., Grand Rapids.
Straatsma, C. R., Grand Rapids.
Stuart, G. J., Grand Rapids.
Strong, Edwin B., Rockford.
Thompson, P. L., Grand Rapids.
Torgerson, W. R., Grand Rapids.
VandenBerg, Henry J., Grand Rapids.
Vis., William R., Grand Rapids.
Votey, Frank A., Grand Rapids.
Vann, Norman S., Grand Rapids.
Warnshuis, F. C., Grand Rapids.
Wells, Merrill, Grand Rapids.
Wenger, A. V., Grand Rapids.
Whinery, Joseph B., Grand Rapids.
Willits, Paul W., Grand Rapids.

Lapeer County—5

Best, H. M., Lapeer.
Kay, W. J., Lapeer.
Marsh, Philip E., Otter Lake.
O'Brien, D. J., Lapeer.
Zemmer, H. B., Lapeer.

Lenawee County—6

Chase, A. W., Adrian.
Heffron, Charles H., Adrian.
Hewes, A. B., Adrian.
Marsh, R. G. B., Tecumseh.
Van Dusen Chad A., Blissfield.
Westgate, C. H., Morenci.

Macomb County—3

Croman, Joseph M., Mt. Clemens.
Curlett, J. E., Roseville.
Greene, C. E., Richmond.

Manistee County—1

Robinson, H. D., Manistee.

Marquette-Alger County—3

Burke, R. A., Palmer.
Finch, Russell L., Marquette.
Hornbogen, A. W., Marquette.

Mason County—1

Goulet, Leo J., Ludington.

Mecosta County—2

Franklin, B. L., Remus.
Grieve, Glenn, Big Rapids.

Ionia-Montcalm County—18

Barker, J. E., Crystal.
Becker, Myron G., Edmore.
Bower, Albert J., Greenville.
Horne, George E., Stanton.
Johns, Jos., Ionia.
Johnson, F. A., Greenville.
Kelsey, Lee E., Lakeview.
Lilly, I. S., Stanton.
McCann, John J., Ionia.
Marsh, F. M., Ionia.
Maynard, H. M., Ionia.
Pankhurst, C. T., Ionia.
Peabody, C. H., Lake Odessa.
Penton, A. B., Smyrna.
Robertson, Perry C., Ionia.
Robinson, J. W., Lake Odessa.
Stanton, G. A., Belding.
Toan, John W., Portland.

Monroe County—3

Rubley, Samuel J., Monroe.
Thiede, F. C., Monroe.
Karch, Arthur W., Monroe.

Muskegon County—7

Busard, Robert L., Muskegon.
Eames, Lucy N., Muskegon.
Garber, Frank W., Muskegon.
Harrington, A. F., Muskegon.
LeFevre, George L., Muskegon.
Norford, F. N., Muskegon.
Powers, Lunetto, Muskegon.

O. M. C. O. R. O.—1

Keyport, C. R., Grayling.

Oakland County—8

Burt, F. J., Holly.
Campbell, Harvey, Pontiac.
Colvin, Nathan B., Pontiac.
Corbit, A. B., Oxford.
Farnham, Lucias, A., Pontiac.
Lockwood, Clement E., Holly.
Mercer, Frank A., Pontiac.
Rochm, Harold R., Birmingham.

Oceana County—2

Buskirk, J. D., Shelby.
Griffin, W. L., Shelby.

Ottawa County—5

Brower, Arthur J., Holland.
Cook, Daniel, Holland.
Long, Charles E., Grand Haven.
Nichols, R. H., Holland.
Stickley, A. E., Coopersville.

Saginaw County—18

Anderson, William K., Saginaw.
Bagshaw, D. E., Saginaw.
Cady, F. J., Saginaw.
Curtis, E. E., Saginaw.
Harvie, L. C., Saginaw.
Hutchinson, John W., Saginaw.
Keller, S. S., Saginaw.
Kempton, R. M., Saginaw.
Ling, E. M., Hemlock.
Lohr, Oliver W., Saginaw.
McKinney, A. R., Saginaw.
McLandress, J. A., Saginaw.
Powers, Julius H., Saginaw.
Rowe, B. B., Saginaw.
Scott, Robert R., Saginaw.
Toshach, Clarence E., Saginaw.
Watson, R. S., Saginaw.

Shiawassee County—15

Bene, J. J., Owosso.
Carney, E. J., Durand.
Crane, C. A., Corunna.
Cudworth, L. M., Perry.
Fair, Robert C., Durand.
Greene, I. W., Owosso.
Haviland, J. J., Owosso.
Hixson, L. D., Durand.
Hume, Arthur M., Owosso.
Hume, H. A., Owosso.
McCormick, Colin, Owosso.
Mahaney, R. C., Owosso.
Parker, W. T., Owosso.
Soule, G. T., Henderson.
Weinkauf, William F., Corunna.

St. Clair County—7

Burley, Jacob H., Port Huron.
Callery, A. L., Port Huron.
Clancy, C. C., Port Huron.
Fraser, R. C., Port Huron.
Haight, Edward, Emmett.
Heavenrich, Theo. F. Port Huron.
MacKenzie, Alex. J., Port Huron.

St. Joseph County—4

Barninger, C. E., Mendon.
Dean, Ray, Three Rivers.
Morris, Charles G., Three Rivers.
Robinson, Fred W., Sturgis.

Tri-County—1

Ricker, Otto L., Cadillac.

Tuscola County—2

Clark, C. W., Caro.
Young, S. B., Cass City.

Washtenaw County—22

Barss, Harold D., Ypsilanti.
Bauer, Theodore I., Ann Arbor.
Bruce, James D., Ann Arbor.
Cabot, Hugh, Ann Arbor.
Camp, Carl D., Ann Arbor.
Cummings, H. H., Ann Arbor.
Cunningham, J. E., Fowlerville.
Darling ,Cyrenus G., Ann Arbor.
Furstenberg, A., Ann Arbor.
Honeywell, Bert H., Ann Arbor.
Huston, John, Ann Arbor.
Kampmeier, R. H., Ann Arbor.
Klingman, Theophil, Ann Arbor.
Kudner, Don F., Ann Arbor.
Langford, Theron S., Ann Arbor.
Levin, Samuel J., Ann Arbor.
Mersen, John, Ypsilanti.
Peet, Max, Ann Arbor.
Scheurer, P. A., Manchester.
Sigler, Hollis L., Howell.
Wilson, Frank N., Ann Arbor.
Youmans, John B., Ann Arbor.

Wayne County—129

Amberg, Emil, Detroit.
Bagley, H. E., Detroit.
Baker, George J., Detroit.
Ballin, Max., Detroit.
Barbee, G. H., Detroit.
Barton, J. R., Detroit.
Balmgarten, E. C., Detroit.
Beattie, Robert, Detroit.
Beaver, D. C., Detroit.
Bernstein, Edward J., Detroit.
Bell, John N., Detroit.
Belknap, C. H., Detroit.
Bernard, W. G., Detroit.
Blain, Alexander W., Detroit.
Blanchard, F. N., Detroit.
Biddle, Andrew P., Detroit.
Brooks, Clark D., Detroit.
Brown, A. O., Detroit.
Caldwell, J. E., Detroit.
Campbell, Mary B., Detroit.
Campbell, Duncan, Detroit.
Campbell, Don M., Detroit.
Carter, John M., Detroit.
Carstens, Henry R., Detroit.
Cassidy, William J., Detroit.
Caster, E. W., Highland Park.
Catherwood, Albert E., Detroit.
Charters, J. Hamilton, Detroit.
Chester, John L., Detroit.
Clark, Harry L., Detroit.
Clark, R. L., Detroit.
Collins, A. N., Detroit.
Cohoe, Don A., Detroit.
Cole, Fred H., Detroit.
Cole, W. C. C., Detroit.
Condit, L. Irving, Detroit.
Connor, Guy L., Detroit.
Connor, Ray, Detroit.
Daniels, Lewis E., Detroit.
Daniels, Lewis E., Detroit.
Davis, James E., Detroit.
Dempster, J. H., Detroit.
Dibble, Harry F., Detroit.
Doty, Arthur G., Detroit.
Douglas, Bruce H., Northville.
Dutchess, Charles E., Detroit.
Foster, T. J., Highland Park.
Foster, Robert F., Detroit.
Frothingham, George E., Detroit.
Funston, Robert V., Detroit.
Gates, Nathaniel, Detroit.
Glendening, J. H., Detroit.
Garretson, W. T., Detroit.
Garner, H. B., Detroit.
Grant, Heman, Detroit.
Hackett, William A., Detroit.
Haynes, L. W., Detroit.
Henderson, Leslie T., Detroit.
Hirschman, Louis J., Detroit.
Howell, Don M., Detroit.
Hoobler, B. Raymond, Detroit.
Hunt, Verne G., Detroit
Jenne, B. H., Detroit.
Jennings, Alpheus F., Detroit.
Jennings, C. G., Detroit
Kasper, Joseph A., Detroit.
Kay, M. Boyd, Detroit.
Kelly, Frank A., Detroit.
Kenning, J. C., Detroit.
Kiefer, Guy L., Detroit.
Kimzey, John A., Detroit.
King, J. Everett, Detroit.
Lawrence, William C., Detroit.
McLean, Angus, Detroit.
Levy, David J., Detroit.
Loucks, R. E., Detroit.
McAlpine, G. S., Detroit.
McKean, Richard M., Detroit.
McGarvah, J. A., Detroit.
McCormick, Colin C., Fordson.
McClelland, C. C., Detroit.
McIntosh, W. W., Highland Park.
Malejan, Harry M., Detroit.
Matthews, J. D., Detroit.
Merrill, William O., Detroit.
Naud, Henry J., Detroit.
O'Hora, Bernard A., Detroit.
Owen, Robert G., Detroit.
Peirce, Howard W., Detroit.
Pierson, Merle, Detroit.
Poos, Edgar E., Detroit.
Pratt, J. P., Detroit.
Richardson, Allan L., Detroit.
Richey, Edward B., Detroit.
Robb, J. M., Detroit.
Royce, F. D., Detroit.
Ruedisuel, C. A., Detrot.
Russell, Beck G., Detroit.
Ryerson, Frank L., Detroit.
St. Louis, R. V., River Rouge.
Sage, Edward O., Detroit.
Saley, D. H., Northville.
Scott, William J., Detroit.
Shute, R. James, Detroit.
Siddall, Roger S., Detroit.
Simpson, H. Lee, Detroit.
Sladen, Frank J., Detroit.
de Spelder, R. E., Detroit.
Stone, D. D., Highland Park.
Thompson ,Alexander, Detroit.
Tibbals, Frank B., Detroit.
Van Duzen, V. L., Detroit.
Vaughan, J. W., Detroit.
Vollertsen, B. H., Detroit.
Wadsworth, Warren, Detroit.
Wallace, W. B., Highland Park.
Walker, Frank B., Detroit.
Walker, Roger V., Detroit.
Wendel., J. G. Detroit.
Wendt, Leonard F., Detroit.
Whittaker, A. H., Detroit.
Wickham, A. B., Detroit.
Witter, Frank C., Highland Park.
Wilson, Harold, Detroit.
Wilson, Walter, J., Detroit.
Wood, George H., Detroit.
Wood, Lilla B. Detroit.
Woodworth, William J., Detroit.
Yates, H. Wellington, Detroit.
Yoakam, Wayne, A., Detroit.

GUESTS

Dr. Oskar Benesi, Vienna Austria.
Dr. George F. Green, Rochester, Minn.
Dr. Harold Hays, New York City.
Dr. C. F. Hoover, Cleveland, Ohio.
Dr. Irvin Abell, Louisville, Ky.
Dr. E. S. Judd, Rochester, Minn.
Dr. George W. MacKenzie, Philadelphia, Penn.
Dr. W. M. Nagle, Muskogee, Okla.
Dr. C. W. Rutherford, Indianapolis, Ind.
Dr. Alfred A. Strauss, Chicago, Ill.
Dr. Frank C. Wade, Howe, Indiana.
Dr. U. V. Portmann, Cleveland, Ohio.

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

PUBLICATION COMMITTEE
J. D. BRUCE, Chairman ..... Ann Arbor
B. F. GREEN ..... Hillsdale
B. H. VAN LEUVEN ..... Petoskey

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Grand Rapids, Michigan

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OCTOBER, 1926

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

OUR LANSING MEETING

The minutes of the House of Delegates will be found in this issue. They constitute the record of our 106th Annual Meeting in Lansing on September 14-15-16th, but fail to convey the spirit and cordiality that prevailed. Neither is it sufficient to state that it was one of our most outstanding meetings. Consequently we purport pointing out some of the features.

At the very outset credit must be given to the Lansing profession. For weeks did they plan and arrange so that during our three day stay their team work was perfect. No detail was overlooked. The Old's Hotel was of such construction that all our general and combined meetings were housed under its roof. From the opening of the Registration Book till the last guest departed there were relays of a dozen Lansing men, on duty attending wants, evidencing cordiality and providing for our pleasures and comfort. The entertainment, dinner and demonstrations at the State College were but the climax of Lansing's example of perfect hosts. To the Ingham County Society do we tender our appreciative thanks.

The Section Programs evoked interest and praise. The meetings were well attended. The several papers and discussions will appear in the issues of The Journal.

The total registration was 626, establishing our highest record for meetings held outside of Detroit and Grand Rapids.

The following officers were elected:

President, J. B. Jackson, Kalamazoo.

Vice Presidents: E. I. Carr, Lansing; W. J. Cassidy, Detroit; A. F. Fisher, Hancock; J. J. Haviland, Owosso.

Councilors: B. R. Corbus (re-elected), Grand Rapids; C. E. Boys, Kalamazoo; H. Cook, Flint.

Chairman of the Council, R. C. Stone, Battle Creek; Vice Chairman, B. R. Corbus, Grand Rapids; Speaker, W. K. West, Painesdale; Vice Speaker, Carstens, Detroit.

Delegates to A. M. A.: C. S. Gorsline, Battle Creek; L. J. Hirshman, Detroit; J. D. Brook, Grandville.

Alternates: A. W. Hornbogen, C. E. Boys, J. G. R. Manwarring.

Mackinac Island was selected for our 1927 meeting place, with the latter part of June as the time.

We refer our readers to the official minutes and the Editorial Comments for further details of our 106th Annual Meeting.

PRESIDENT JACKSON

In the hundred and six years of our organizational existence our Society lists a distinguished line of Presidents. We are proud of these fellow members who have served so faithfully and so well. The presidency is an honor of which one may be proud to attain. In turn the occupant likewise conveys honor upon the Society by reason of his ability, attainments and reputation. This is evidenced once more in the election to office of President, for the ensuing year, Dr. John B. Jackson of Kalamazoo, a member fully deserving of the honor and a man who honors the Society.

We do not purpose imparting a biographical sketch of our new President. His career is common knowledge. The services he has subscribed to his local and State Societies reflect unselfish contribution of time, judgment and labor extending over some fifteen years of activity. During this period he has manifested but one motive, one purpose and one ideal: the best interest of the profession, the Society and the individual doctor. To that end did he serve and upon that problem did he concentrate his energy. Those who were associated with him early perceived his keen grasp of affairs and unfailing right judgment and accorded full re-

spect for his opinions. Through all there pervaded a deep sincerity. He is not without humor and does not descend to the solemn deacon-like demeanor when in conference. To us these are his outstanding attributes. It is difficult to do justice to him in words for you have to learn to know "Jack," you've got to work with him to fully appreciate his calibre and his humanness. We are proud of having been so privileged and prize the association.

As our President, Dr. Jackson may be confidently looked to as acquitting himself of the trust and at the same time leading us on to greater achievements.



JOHN BERT JACKSON, President

THE MEDICAL CORPS, U. S. NAVY

The celebration of Navy Day, October 27, brings to mind the great achievements of the navy in war. We are all proud of our navy as a powerful fighting unit and sleep more soundly at night because we know the fleet is awake. In thinking of the navy, however, we, as members of the medical profession, should bear in mind particularly that branch of the service whose mission—in peace as in war—is to keep the navy "Fit to Fight"—the Medical Corps.

While the primary duty of the Medical Department of the navy is as stated, it has other duties to perform as well. Not the least among these, and one of great value and interest, is

that of looking after the physical welfare of the natives of our island possessions and protectorates.

In the Philippines, the navy's medical activities are confined to the care of its own personnel and of the natives living in the vicinity of the two naval stations, Cavite and Olongapo.

In our other possessions—Guam, Samoa, and the Virgin Islands—the entire medical care of the natives devolves upon the Navy Medical Corps. That this responsibility has been fully realized and this duty well performed is evidenced by the great changes that have occurred in the health conditions of these islands since their acquisition by the United States. Formerly hot-beds of disease, particularly malaria, filariasis, and yaws, they are now almost free from these diseases and their morbidity statistics compare favorably with those of our own more highly civilized communities.

Infant mortality, due to lack of knowledge on the part of mothers and ignorant midwives, was very high among the natives. Training schools for nurses, conducted by members of the Navy Nurse Corps and supervised by members of the Medical Corps, have been established and now native nurses are scattered throughout the islands, teaching the people how best to live and materially reducing both morbidity and mortality rates.

Clinics, to which the natives flock, have been established in all the larger centers and in many outlying villages and are doing a splendid work.

Haiti, while in no sense a dependency of the United States, has, during recent years, been the recipient of many benefits derived from the activities of the Naval Medical Corps within its borders.

Chief among the medical activities in Haiti is the Service d'Hygiene Publique, at the head of which is a Naval Medical Officer, and which, as its name implies, is concerned with the public hygiene and sanitation in the Republic. Much has been accomplished. Sanitary privies are found all over the island, where formerly none existed; sewage disposal has been modernized in the larger cities; hospitals and dispensaries have been built, and modern equipmen installed. All this has been done by Naval Medical Officers, and the work is still going on.

The lower classes of Haitians are densely ignorant, and superstitious to a high degree; but, in spite of this, a beginning in their education along hygienic lines has been made and they are also beginning to see that modern medicine is more effective against disease than their ancient voodoo rites have been.

Irrespective of what our views may be concerning the presence of the American in Haiti, we can at least be pleased that so many of the blessings of sanitation and hygiene have been given to our neighbors by members of the Naval Medical Corps.

POST GRADUATE COURSE AT ANN ARBOR—THREE DAYS—1926

In compliance with the instructions of the Council, approved by the House of Delegates, a *three day course* of *Post-Graduate Instruction* will be conducted at the University Hospital, Ann Arbor, on November 11, 12 and 13, 1926, Thursday, Friday and Saturday.

The program and details are being perfected by the staff of the Medical Department of the University. These details will be announced in our next issue. In general we can state that they will consist of hourly demonstrations, utilizing the clinical and laboratory facilities of the University Hospital. Each day will be fully occupied from 9 a. m. to 9 p. m.

Who are eligible? Every member of our State Society.

Cost? Your travel expense and hotel. There are no fees or assessments.

Enrollment—Every member availing himself of this course must enroll by advising the State Secretary, 1508 G. R. National Bank building, Grand Rapids, *not later than November 1st, 1926.* This enrollment is imperative in order that amphitheatre space and clinic groups can be arranged.

Purpose—To afford each member an opportunity to profit by reason of three days of intensive clinical demonstrations that characterize medical practice and progress of today. This will enable our members to reflect these practices in their daily work. You can't help but return home a better doctor.

We urge then that you plan to attend. Mark the dates on your calender. Send in your enrollment *now.* On Saturday afternoon you can see the University Football team in one of its scheduled games.

Editorial Comments

By reason of frequent inquiry and also because promiscuous claims are often made regarding the numerical membership strength of County Societies, we are imparting the following compilation:

New York County	4,176
Chicago Medical	3,985
Philadelphia County	1,965
Boston—	
Suffolk	735
Norfolk	587
Middlesex	613
	1,935
Los Angeles	1,450
Kings County, N. Y.	1,577
Allegheny County, Pa.	1,264
Wayne County, Mich.	1,186

These are the County Societies having a membership of over 1,000 members.

Ingham County members were ideal hosts and overlooked nothing. They worked as a perfect machine and their "Red Badges" very soon caused every visitor to become aware he had a live host. Particular mention is due to Dr. Shaw, General Chairman, President Segar, Dr. Drollett and Dr. Wiley. We're going to Lansing again—soon.

We all have a more impressive opinion of our State College. Our visit to the campus was a delightful one, made more so by the receptioin tendered by President Butterfield and Dean Giltner.

The first General Session in the Prudden Auditorium recorded an audience of 1,800. Lansing received messages as to our aims and responsibilities from the addresses delivered, that will be inducive to better understanding. It was a snappy program completed by 9:40 P. M.

President Darling's address is published in this issue. It is a far thinking discussion of our professional obligations. Read it, ponder over it and set forth to follow the advice imparted.

President Little's address was appraised by all as splendid and of sound philosophy. We were unable to get the stenographer's report of it in shape for this issue. It will be published in our November number. We are indebted to Dr. Little for contributing so greatly to the success of our meeting.

And did you see the "Old Boys"? Ex-officers of the Society with smiles for all and happy in their mingling with their fellow members. They were, Burr, Bulson, Haugney, Dodge, Hume, Bradley, Kay, Ostrander and Sawyer. We were going to add Biddle, but he was so active and young that we're afraid he would resent being numerated as an "Old Boy." It was heart warming to see these men who gave and did so much for our Society continue to manifest interest by attending.

The exhibits were not missed and they exercised no detracting influence. Guess we can continue to get along without them.

Hats off to the eye, ear, nose and throat section—the "E. E. N. T's." They were at it Tuesday morning and going strong Thursday afternoon. They engendered fellowship by their section dinners and lunches. It's up to the other sections to step lively to get abreast of their stride and that will be going some. Good work "EENT'S," but look out next year, others are going to bid for similar distinguishment.

Mackinac Island—1927! That's the place for our next meeting. Science and sports will go hand in hand so plan now for it's going to be one blinger of a meeting.

The experiment of conducting all the sessions of the House of Delegates on one day appeared to be very satisfactory. The Delegates got down to business and kept at it until all the work was completed. Delegates then had the opportunity of attending all the section meetings. County offcers are especially urged to read the official reports and minutes.

We extend regrets and sympathy to the "Stay at Homes." Yes, we know you were busy and just couldn't come and we are so sorry cuz you missed a fine meeting. We thought of you and felt your absence. Remember too, the fellows who did attend are a little better than you now and you'll have to step along to keep up. By faithfully attending your County Society meetings this winter you can catch-up. Better do it.

Yep, there was a state primary election. Sure we got the early and late returns and well, "That was that" while a certain letter is now not so heinious as it was a few weeks ago. Anyone reading the signs and wall prints could forecast the result—'enuff said.

"Jack's" (excuse) President Jackson's election was a fitting honor to one who has been so faithful and efficient Councilor. We shall be proud of his leadership and know now he is going to keep us humping during the year. He's available for your County meetings, so book him early on your local programs.

Two new Councilors, Cook and Boys, assumed office. We shall look forward to watching things hum in their Councilor Districts.

To whom may we look as the leader in matters pertaining to medicine, medical practice, preventative medicine, public health activities, in fact in all subjects and effort related to and dealing with things medical and related to individual or collective health, disease and disease prevention? This is a question frequently asked by doctors and laymen. The answer has often been in error or unreliable. That is due probably to the hundred and one, yes the thousand and one existing organizations, good and bad, each of whom purposes to be related to some branch of medical and health work. They are Societies, Associations, Bureaus, Leagues, Foundations, "Colleges," Institutes, Boards, Committees, etc., Each self-satisfied by assuming to be the highest authority and leader in the field to which they announce as their specialty. Some of these organizations are good, accomplishing meritorious work; others are bad, even rotten and without sound reasons for existence. The average doctor is as much at loss in discriminating as is the average laymen, but the answer is simple. The answer is apparent if one but pauses to think and is correct because of established prestige. When asked the question here is your answer: In all matters, national in scope, dealing with all branches of medicine and medical science, the outstanding leader and authority is the American Medical Association. In matters of states, the State Medical Society ever officiates in that capacity. Locally it is the County Medical Society. These are ever the recognized leaders. Other organizations taking unto themselves such self appraisal are in error, and bigoted.

Well the primaries are over and the result—Simply that's that. It's a great blare of assertions and promises on both sides and when elections are over we go about our business with little or no effort at all to demand that candidates make good on their promises. That's where we all fall down and for that reason the peddling of jobs and spoils ensue.

"How to Treat Your Doctor"—is the title of an article in Scribner's Magazine, September issue, from one Rhodes.

We call attention to a new field of activity entered upon by the American Medical Association for the guidance and protection of doctors: The establishment of the Council on Physical Therapy with a full time secretary. This Council will do for doctors in all matters pertaining to physical therapy and electrical equipment what the Council on Pharmacy has so splendidly achieved in drugs and pharmacutical preparations. The need was pressing for with increasing

resort to electro-therapy in the treatment of various ailments and conditions there have resulted a wide and wild ogre of manufacture of all types and styles of apparatus at all sorts of prices and with no limit to claims as to their therapeutic efficacy. The individual doctor had no way of determining intrinsic values, merits or efficiency. He bought on blind confidence, and paid prices frequently two or three hundred times their actual worth. In illustration we cite the so-called, radiant or solar lamps. Price $75 to $100. All it is and does can be accompanied by a light bulb at about $3.00 and a parabolic reflector at $7.00 or $8.00 with a plug and a few feet of cord, the total cost not exceeding $15.00. That is but a simple illustration. In the future, Doctor, have electrical equipment salesmen evidence the value of their apparatus by showing it has been approved by the Council on Physical Therapy of the A. M. A. Look to this Council, also for the value of electrical treatment in the treatment of various conditions and do not accept blindly the over enthusiastic advice of some salesmen or even doctors. We welcome the establishment of this new Council which evidences anew continued concern on the part of the A. M. A. for the protection of doctors.

Abortionists should be cited before our State Board of Registration to show cause why their licenses to practice medicine should not be revoked. Every hospital has in it's records the witnessed statement of women who impart the name of the doctor or individual producing the abortion. These statements should be sufficient evidence for revocation of licenses. The patient will not swear to a warrant and become the complaining witness in court. Hence these blackguards continue unmolested. It's time our State Board was undertaking some such proceedure.

If you have been remiss in not reading The Journal during the summer months we recommend that you be alert during the remaining months of this year. Some very interesting and important announcements will be made in succeeding issues. These are of vital interest to you and relate to your membership privileges.

The House of Delegates and the Council very properly accorded recognition of the services recorded by two distinguished members whom death removed from our midst this past year—Drs. C. T. Southworth and B. M. Davey. We miss their wise council and inspiration.

The golfers are coming pretty strong. There were frequent suggestions for a golf tournament at our Annual Meetings. Well, you are going to get one on Mackinac Island next year. Incidently if there are any tennis players or quoit pitchers opportunity will also be afforded for them to contest. Lansing golf clubs were courtesy personified.

The following editorial in the Lansing State Journal is worth reprinting:

GREETINGS, DOC

Comment on the election returns can wait—look who is here.

Welcome to our city, Michigan State Medical Society. You already have most of our appendices, now take the spare room.

Of course, the visiting brothers are aware that there is probably no band of men whom the dear public more enjoys to bambast, not to say dam, than the medical profession, and, yet—oh you know Doc, how it is. We often hand you our last sou, or at any rate promise to hand it. There are times when nobody looks so good as you.

Whether the present visit of the physicians and surgeons may be classed among the lighter hours vouched safe to them, at rare intervals, or whether it is a purely professional visit, we do not know. However, if doctors are as human as we suspect they are, they are combining professional services with pleasure. Where is the American who does not like to go on a jaunt, put up at the big hotel and wear a red or blue badge on his manly bosom? If the doctors did not like to do that once in a while we should be highly suspicious of them.

The visitors will likely "blow themselves" to a sumptuous feast, before they leave our fair city, and overeat and accumulate other ills such as afflict most convention visitors, the morning after, but in this they are like the rest of us—none of us act as well as we know how. So it is that we know that there is a bond of sympathy between the doctors and we other weak erring ones even though their talk, their instruments and bills don't show it.

As indicated above, the whole bloomin' public does like to take a verbal fall out of the medical profession, but in spite of all the public says, from time to time, it does recognize the professional advance that has been made by the medics since they began their upward and onward progress. It does deserve to be said that the medical profession has a fine array of altruistic deeds and accomplishments to its credit.

That the plane of public health is vastly better today than it once was, goes without saying. That the medical profession and those allied with it are largely responsible for the bettered condition we think may be contended with a large degree of assurance. To the narrow view it would seem that the best way for the medical profession to prosper would be to leave a condition conducive of the most disease and suffering, but the contrary situation has come to pass. The medical profession as a whole, has worked steadily in the right direction. Of course, there are sharps and quacks in the profession as there are in all lines of endeavors, but as for scientific medicine it has pursued an onward and upward way.

Lansing may well feel itself proud to entertain the Michigan State Medical Society. It is one of the most important organizations of the commonwealth.

We are indebted to the distinguished guests who participated in our program. When a train derailment delayed the arrival of two speakers, Dr. Strauss became a "pinch hitter" and gave a splendid talk on "Pyloric Stenosis in Infants." Dr. Abel, left his stalled train and drove 40 miles in a taxi and was "on time." These men came to us at considerable expense of personal time. They are not mercenary in doing so but contribute their part to the advancement of the profession and organizational work. We are indeed grateful to each of them.

Do not fail to read the Annual Report of the Council. It imparts just how your affairs are administered. Other states may have efficient functioning Councils but Michigan leads.

The 1927 annual meeting of the American Medical Association will be held in Washington the week of May 16. Dr. William Gerry Morgan of Washington is General Chairman of the local committee on arrangements. In as much as Section Officers are preparing their section programs, Michigan doctors desirous of reading a paper before a section should file their requests at this time. As a rule the programes are completed by December first, and applicants after that date will not be considered.

Note the editorial in this issue relative to a Three

Day Post-Graduate Course at Ann Arbor. This is free to our members and will profit you more, cost less than a jaunt to a grandstand affair in Ohio. Be sure and send in your enrollment. You will regret it if you miss this intensive Clinical demonstration that is being arranged for you and for your personal profit by your state society. It is one of the benefits of membership. Enroll now. For entertainment you will have opportunity of seeing Michigan's team play one of its scheduled football games.

Among Our Letters

NOTE.—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Powers Theatre Bldg., Grand Rapids, Mich.*

WHY THE FAMILY PHYSICIAN?

In these days of Propaganda, Bloc's, Clinics, and Unions' no human occupation, be it trade or profession is overlooked. From the man who gets the bricks up on the scaffold to the one that does all the work, from the white wings that attends to the sanitary condition of our streets, to the undertaker, who covers all the mistakes of humanity, none are missed. Even our profession is made to sit up and eat out of the hand of the state board of health. Some say we fear state medicine, why gentlemen, we have it now, please note how the rank and file of the profession laid down and rolled over when the state health commissioner cracked his whip. Will we do that again? We will not. We are subject to propaganda; in nearly every journal that we pick up, and every newspaper, you will find an article from the pen of some wise man, bemoaning the fate of the family physician. Since the close of the World War we seem to be passing through a wonderful era of unrest and dissatisfaction, not only has our profession become infected by the idea, but the whole world seems to be standing still, wondering what is to come next. While not ready to answer all the questions arising from this condition I shall try and give you one point of view on the title of this paper—why the family physician?

In reviewing the situation, I notice first unusual condition—the doctor does not seem to be worrying, or asking any questions along this line of thought. On the other hand he seems to be contentedly doing his bit as it comes to him, calling for help as he feels the need of the same, bringing the new born into the world in the same old manner, comforting the bereaved in their losses, rejoicing with the young mother at the birth of her first child paying his debts like a christian, and in general being loved and respected in the community where he resides. Still there is something wrong; what is it? Along with the worry and anxiety of what may become of the family physician I notice this point that may have a bearing on the ultimate or final results.

Snce the war there are many small towns throughout the country that have no resident physician, where there were formerly one or more, why? One reason for this seems to be, that during the war the country districts as well as the cities were bled of our young men, and at the close many of them did not return. Many lie on the fields of France today, having made the supreme sacrifice for their country. Of those returning many did not remain, preferring the bright lights of the city and the companionship of those of their own age, to the humdrum life of the usual rural community. This of course reduced or narrowed the field for the physician. Again, the improved means of transportation make it possible for the doctor to reside in the city, and still care for a large clientele in the country. The automobile and the interurbans bring the hospitals much nearer to the rural population than formerly, and the people are rapidly learning to take advantage of the hospital. These refinements of civilization shall we say have made it possible for the needy ones to obtain service, oftimes better, certainly sooner, which is as we all are aware of, in many cases of the greatest importance. The effect of this condition has been to cause many of our men, formerly in general practice, for various reasons to specialize in the different branches of the profession, until it really looks at times as if there was no room or further use for the family physician, but is this true? Must a case, not a patient, as we were wont to designate them in the good old days before the war, must a case be catalogued, card indexed, and numbered as he travels from section to section in the group clinic. God forbid. Commercialism pervades our country in a large way in about every effort of human endeavor, but let it never be said that it applies to us as physicians. The great question appears to me to be, not how shall he be eliminated, but where shall he be placed in the new scheme of things. To me this thought occurs along that line. He is a real and indispensible man on the job, for this reason: Usually he is the first to meet the patient, make the examination, and place him under treatment after making a tentative diagnosis and if he realizes his limitations he will call or refer him to a specialist for further observation, examination, or confirmation of the diagnosis made, with possible suggestions as to the treatment, surgical or medical, as the case may be. He is the one who has the confidence of his patient, making it possible for him to lead him away from the various cults and isms, into the path of legitimate medicine, and possible cure, or at least directed on the right way. What then should be the relationship of the specialist and the family physician.

Should my previous statements be accepted as being true?

In my mind, the spirit of frankness and co-operation must exist between the physician, and specialist, and the patient, if we are to obtain satisfactory results in a large and satisfying manner, and this little bit of psychology, believe me has more to do with the recovery or at least improvement of the patient than we are willing to admit. Now it is a fact, undisputed, that all patients referred to the specialist do not recover, neither do they all succumb, meaning by this statement that we should not delay until the patient is past all human aid before calling counsel or the specialist. If this spirit is carried out honestly on either side giving your patient every opportunity by calling in the man you may select for the case, I am quite sure that the family physician will have no cause to complain of the treatment of his specialist brother. In the past I am inclined to think that the chief cause of complaint of the physician against his brother specialist has been the tendency to belittle or underrate the judgment of the man in general medicine, saying just enough perhaps to make the patient distrustful or dissatisfied or both. Sooner or later we find much to our disgust the patient has passed from

our hands to his, and aside from our financial loss, we lose what is far greater, we lose our faith or whatever you may call it, in our brother, and, it might be some time before we would feel justified in calling him again. Thus we all lose, even the patient. This is not right, and every effort should be made to avoid such a situation, and I feel very certain that if that spirit of honesty and fairness spoken of before, is religiously observed by both the physician and specialist, about all of the friction will be eliminated, Gentlemen, it must be overcome, for this is a device, an interlocking device, one branch of the profession is dependent on the other. There is just one other point that I wish to touch upon as making it difficult for the family physician—in fact I deem it vital, vital to that goodfellowship that should exist between the specialist and the man in general medicine, and that is the habit of the specialist practicing medicine in addition to his specialty, I can see where it might be difficult for the specialist in the smaller cities to keep himself busy by his specialty alone, and I do not find any great fault with the man who has long been a resident of a city, later taken up a specialty, I say I do not find any great fault with such a man taking care of his old patients, but aside from that I can see no reason why the specialist should not refer to the man in general medicine all cases belonging to them. For you know if it were not for the general medicine men referring patients to them the specialist would not be so very busy, and if they were returned to the physician with suggestions as to the line of treatment, there is no doubt in my mind but that spirit of amity and confidence that is absolutely necessary to the successful issue of the conditions under observation would prevail. So, in the final analysis the family physician has his place in the sun, and if treated fairly will never worry or ask questions, but as I said at the beginning of this paper, we will go about contentedly doing his bit as it comes to him, calling in help as needed bringing the new born into the world in the same old way, comforting the bereaved in their distress, rejoicing with the young mother at the birth of her first born, paying his debts like a christian, and in general being loved and respected in the community where he lives. I thank you. Paper read at June meeting of the Ingham County Medical Society.

Victor F. Huntley, M. D.

Editor of The Journal:

The contents of your letter is especially pleasing to me. I realize fully that it is only with your assistance that I can in any way carry on during this coming year. If you will keep me advised of everything that is happening I will at all times do my best; hoping that a year from now we will be able to see that we have accomplished something for organized medicine and the public of Michigan.

Yours very sincerely,

R. C. Stone.

Editor of The Journal:

Thanks for your letter of September 20th. I shall endeavor to give Michigan a dignified representation in the House of Delegates of the A. M. A.

Awaiting the commands of the administration and membership, I am

Yours sincerely,

Louis J. Hirschman.

Editor of The Journal:

Your letter, notifying me of my election to the Speakership of the House of Delegates of The Michigan State Medical Society, received. I appreciate the honor very much but have not sought it in any way. As I have not been a Delegate in some years I know very little of the Speakers duties and will appreciate your help.

Thanking you, and with kindest personal regards, I am,

Sincerely yours,

W. K. West.

Editor of The Journal:

I would appreciate it if you would print the following ad in your next issue.

"Physician wanted, excellent opportunity for young physician interested in pediatrics."

Send statement for the above to the Michigan Home and Training School, Lapeer, Michigan.

Very truly yours,

W. J. Kay,
Medical Superintendent.

State News Notes

Dr. F. J. Larned and Dr. H. T. Clay, Grand Rapids, have become associated and limit their practice to pediatrics.

Born, a son, to Dr. and Mrs. B. R. Corbus. Grand Rapids. We prophesy attainment to councilorship in 1956.

An opportunity to meet some of the world's leading men in the field of tuberculosis is offered Michigan Physicians and Public Health workers at the joint meeting in Detroit on October 12th and 13th, of the Michigan Trudeau Society, the Laennac Society of Ontario, the Medical Society of Detroit and Wayne County, and the Michigan Tuberculosis Association. Sir Henry Gauvain, who is director of the Treloar Hospital for Crippled Children at Alton, Hampshire, England, and who has carried on extensive work in the use of sunlight for the treatment of tuberculosis disease of the bones and joints, will address the meeting as will also Dr. Hans C. Jacobaeus of Stockholm, Sweden. probably the most distinguished exponent of the surgical treatment of tuberculosis, and Dr. Ernst Loewenstein of Vienna, who has attained world prominence for his research in the pathology of the disease, and his knowledge of its social and economic aspects.

Dr. C. E. A. Winslow, of the department of Public Health of Yale University, and Dr. H. A. Pattison of the Potts Memorial Hospital, New York, have been asked to address the conference. Dr. Glenadine Snow of Ypsilanti State Normal College, Professor C. F. Tambling of Mount Pleasant Normal College, chairman of a special committee appointed by the Michigan State Teachers Association to formulate a program of Health Education, and Percy Angove of the Department of Civilian Rehabilitation of the State Department of Public Instruction will also talk. There will be Round Tables and Symposiums for special groups and special problems. Headquarters will be at the Book-Cadillac hotel.

Our Society Business and Activities

HARVEY GEORGE SMITH
EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

POST GRADUATE CONFERENCES

Plans for eight Post Graduate Conferences to be held in October and November are under consideration. In the Ninth District the Conference will be conducted at Manistee on October 14 and in the First District at Pontiac on Thursday, November 27. The definite dates and places are to be arranged for the Thirteenth, the Sixth, the Seventh, the Tenth, the Eighth, and the Fifth Districts.

There has been some doubt, at times, whether or not the membership believed in the Post Graduate Conference Program as adopted by the State Society. At the recent annual meeting of the State Medical Society such doubt was dispelled by the endless amount of enthusiasm expressed and the requests from every section of the state by doctors, individually and collectively and by the Councilors, representing the Fourteen Districts . Not less Conferences but more was the demand. With such expression and demand, the series that will be held as the months pass by for the new work year should show a larger attendance everywhere, and should warrant greater accomplishment. The story will in truth be told as one meeting after another is held. The doctors have placed themselves on record, it now remains to be seen whether or not they will fulfill their enthusiasm.

MEETING THE COUNTY MEDICAL SOCIETIES

In order to study the work of County Medical Societies more closely, and to gain a more intimate knowledge of the viewpoint and attitude of the public, the Executive Secretary is visiting County Medical Societies during the next month. The following itinerary covers the period from September 21 to 31.

ITINERARY OF APPOINTMENTS

Oakland County, Pontiac, Tuesday noon, September 21.

Macomb County, Mt. Clemens, Tuesday evening, September 21.

St. Clair County, Port Huron, Wednesday noon, September 22.

Sanilac County, Sandusky, Wednesday evening, September 22.

Huron County, Bad Axe, Thursday noon, September 23.

Tuscola County, Caro, Thursday evening, Septmber 23.

Lapeer County, Lapeer, Friday noon, September 24.

Clinton County, St. Johns, Friday evening, September 24.

Monroe County, Monroe, Tuesday noon, September 28.

Lenawee County, Tecumseh, Tuesday evening, September 28.

St. Joseph County, Three Rivers, Wednesday noon, September 29.

Cass County, Cassopolis, Wednesday afternoon, September 29.

Berrien County, Buchanan, Wednesday evening, September 29.

Hillsdale County, Hillsdale, Thursday evening, September 30.

Branch County, Coldwater, Thursday noon, September 30.

INGHAM COUNTY "AGAIN"

Ingham County has again come into the lime light by being host and hostess to six hundred twenty-six doctors and one hundred wives, daughters and guests of doctors from every section of Michigan. The County Medical Society through its membership wore a smile that never came off during the entire three days. From eight o'clock in the morning until late hours of the night some member was on the job ready to help his visiting fellows. The registration booth always had a "Red Badge Doctor" to greet the incoming doctors. And Lansing Doctors made every one feel as if they had come home, "just hang your hat up any where and take this easy chair." And we actually did have cushioned chairs, padded floors and restful meeting halls. Your enthusiasm, smiles and energy was only exceeded by the electric current of the hotel which blew out several fuses and the bulbs of three lanterns. The ladies of your Society were there, too. Did you hear the visitors say, "We have never been at a State Meeting where we were so royally entertained. Doctors and ladies, you were royal hosts. We hope your "light" shines throughout the state and takes effect in every Society. Read the Editorial Columns for more praises and more truth.

INFORM AND EDUCATE

Twelve doctors signed their names in the little brown book, at the meeting of the Michigan State Medical Society, asking that the "Framed Statement" be sent them postpaid at one dollar and twenty-five cents ($1.25). They will hang this constructive educational statement in their reception room to inform their patients in the requirements of true medical education and what is demanded of every doctor before he is privileged to treat the ill and counsel the apparently well. Little does the public realize how much time, energy and money are expended by members of the medical profession before they have the lawful right to prefix their name with *Doctor* or add the suffix—*M. D.*

Doctors of Medicine must assume the responsibilty of intelligently informing the public. Let the "Statement" (size framed—10x14 inches), which follows aid you in your responsibility. Send your request to your Michigan State Medical Society.

ESSENTIALS FOR ALL WHO TREAT THE SICK

1. A Knowledge of the Human Body, Its Normal Structures, Functions and Governing Laws.
2. A Knowledge of All Common Diseases in Order to Know What Disease is Present.
3. A Knowledge of Effective Remedial Agents; Ability to Apply the One Most Needed.

MINIMUM EDUCATION

That Should Be Required of All Those Who Treat the Sick

1. Four Years of High School.
2. Two Years of College (Including Physics, Chemistry and Biology).
3. Four Years in a Medical College.
4. One Year's Internship in a Hospital.

COUNTY SOCIETY PROGRAMS

In the September number of The Journal we commented on the "Beginnings of the Year's Activities for County Medical Societies." Another month has passed over our horizon. In spots it is dotted with activity, organized action, and in others no action is recorded. But there is a way for accomplishment. That is by using the accomplishments of the State Medical Meeting. Forty-one Societie s were represented by from one to several hundred members. All of these members, no doubt have taken notes, or have in their mind the lectures and discussions of the Section and General Sessions. They may serve their Societies by presenting programs, furnishing discussions for the beginning Scientific meetings of the various Medical Societies. Officers and Committeemen permit your membership to assist in the work of the County Medical Societies. Build your programs now and let not another month pass on without a glimmer. Permit the spirit and enthusiasm that was present at the State Meeting penetrate your county Society meetings and the success of your year's work will be assured.

Deaths

Dr. C. T. Southworth, Monroe, Mich., was killed in an interurban collision, near Monroe on September 2nd, 1926. Dr. Southworth was 54 years old and a graduate of the Detroit College of Medicine and Surgery. Following graduation he located in Monroe, where he rapidly gained prominence and enjoyed an extended practice. Dr. Southworth also served for two terms as member of the council. Beloved by all, a man who was man's friend, cheerful, inspiring with an endearing personality, "Tracy" as we knew him was ever an honored fellow member. Friends he counted by the scores. His tragic death is an ill-timed ending of a life that enhanced all life. To his son, Dr. Varnum Southworth we tender our sincerest sym-



C. T. Southworth

pathies and will ever recall with him the high motives and exemplary life of his distinguished father.

RESOLUTION

Whereas, The tragic and untimely death of Dr. C. T. Southworth of Monroe has removed from our midst, a fellow member, Ex-Councilor and co-worker, therefore

Be It Resolved, That we, The Council of the Michigan State Medical Society, do hereby inscribe in our records, this tribute and acknowledgment of Dr. Southworth's contribution to fellowmen and the medical profession. A man possessed of an endearing personality, a friend of fellow workers, a physician of ability and conscientiousness, a citizen of integrity, Dr. Southworth commanded our respect and held our esteem. Willing to aid to this uttermost, ever extending the helping hand, contributing unstintedly of his time and energy, he exercised a constructive influence to our organizational progress thereby making possible the attainments our Society reflects. Dr. Southworth exemplified these and similar qualities during the 40 years of his professional life and evidenced the spirit that characterizes the life of noble physicians.

Be It Further Resolved, That the sincere sympathy of the Society be extended to his son, and our fellow member, Dr. Varnum Southworth, assuring hm that we mourn with him by reason of the loss of so noble a father, while biding him to receive comfort and peace in the memories that must be his of a loving father.

Adopted and inscribed upon our minutes this sixteenth day of September, 1926.

J. B. Jackson, Chairman,
C. G. Darling, President,
F. C. Warnshuis, Secretary.

Whereas, In the death of Dr. Robert Bennie, of Sault Ste. Marie, the Upper Peninsula Medical Society has suffered the loss of one of its former Presidents, a capable surgeon, an honored member and one of the founders of this Society and

Whereas, We, the members of the Upper Peninsula Medical Society feel the loss of a loved and esteemed member, a man of executive ability who stood ready at all times and under all circumstances to sacrifice time and health in carrying out efficiently all his duties, therefore be it

Resolved, That this Society express its regret at the passing of Dr. Bennie, and extend our deepest sympathy and sorrow to the bereaved family; and be it further

Resolved, That a copy of these resolutions be spread upon the minutes of the Society and a copy be sent to the family of the deceased.

Committee Edward Sawbridge,
H. A. Vennema,
Stephen J. O'Brien.

Whereas, In the death of Dr. Harry J. Hornbogen of Marquette, the Upper Peninsula Medical Society has suffered the loss of one of its charter members, a man of character above reproach, of unusual and recognized ability, of charm of personality which won for him the confidence and affection of his associates, a man whose kindness and charity endeared him to the hearts of all the people, and

Whereas, we, the members of the Upper Peninsula Medical Society feel the loss of a personal friend and an honored member, that therefore be it

Resolved, That our Society express its regret and sorrow at the passing of our fellow member, our appreciation of his services to this Society, and be it further

Resolved, That a copy of these resolutions be spread upon the minutes of our Society and that a copy be sent to the family of the deceased.

Committee Edward Sawbridge,
H. A. Vennema,
Stephen J. O'Brien.

County Society News

WAYNE COUNTY

Officers and Committees—1926-1927

J. H. Dempster, President.
M. A. Darling, Vice-President.
Frank A. Kelly, Treasurer.
Richard M. McKean, Secretary.

Council

J. H. Dempster
M. A. Darling
James E. Davis
Frank A. Kelly
Arthur D. Holmes
Richard M. McKean
Wm. M. Donald
Geo. E. McKean
H. A. Luce
F. M. Meader
W. W. MacGregor
Geo. VanAmber Brown
R. Rupp

Trustees

James E. Davis, Chairman (1 year)
Wm. M. Donald (2 years)
Frank A. Kelly (3 years)
Geo. E. McKean (4 years)
Arthur D. Holmes (5 years)

Surgical Section

W. W. MacGregor, Chairman.
Byron Loney, Secretary.

Medical Section

F. M. Meader, Chairman.
R. L. Novy, Secretary.

STANDING COMMITTEES—1926-27

Membership Committee

George K. Sipe, Chairman
A. E. Catherwood
R. E. Cooper
M. C. Danforth
A. E. Droste
W. B. Harm
Charles F. Kuhn
J. C. Kenning
Chester A. Paull

Public Health Committee

J. Hamilton Charters, Chairman
W. D. Barrett
John L. Chester
Walter A. DeFoe
W. A. Hackett
Leslie T. Henderson
C. O. Hollinger
A. G. Huegli
C. F. McClintic
Howard W. Peirce
Ralph H. Pino
R. T. Tapert

Legislative Committee

I. L. Polozker
Guy L. Kiefer
Frank A. Kelly

Entertainment Committee

Geo. C. Chene, Chairman
Clifford F. Brunk
Cyril K. Valade
J. Roland Bolasny
A. H. Whittaker

Necrology Committee

E. L. Robinson, Chairman
Ray Connor
Leo Dretzka

Public Education Committee

Wm. J. Stapleton, Jr., Chairman
N. E. Aronstam
H. R. Carstens
W. D. Ford
Wynand Pyle
Lawrence Reynolds
Edw. D. Spalding
Don M. Gudakunst
E. R. Witwer

Nurses Committee

Suzanne Sanderson, Chairman
Walter L. Hackett
George J. Baker

Lectureship Foundation Committee

James E. Davis (2 years), Chairman
Wm. M. Donald (1 year)

Jas. A. MacMillan (1 year)
Wm. E. Blodgett (3 years)
Wm. S. Reveno (Special)
E. C. Baumgarten (Special)

House Committee

J. Albert Kimzey, Chairman — Clyde K. Hasley, Wm. S. Reveno
Don A. Cohoe — Leslie T. Henderson

Cancer Committee

Geo. VanAmber Brown (3 years), Chairman
Wyman D. Barrett (3 years)
Wm. A. Evans (3 years)
H. C. Saltzstein (4 years)
Henry L. Ulbrich (4 years)

Program Committee

B. H. Larsson, Chairman — Byron Loney, F. M. Meader
W. W. MacGregor — R. L. Novy

Publication Committee

Edw. G. Martin — Chas. E. Dutchess

Library Committee

Herbert M. Rich, Chairman (5 years)
Frank J. Sladen (1 year)
Stephen H. Knight (2 years)
C. F. McClintic (3 years)
R. L. Clark (4 years)

Ethics Committee

H. B. Garner, Chairman (3 years)
John N. Bell (3 years)
Robt. Beattie (4 years)
Frank C. Witter (4 years)
Stephen G. Mollica (5 years)
Wm. P. Woodworth (5 years)

Special Committee on Medical and Civic Relations

Emil Amberg — A. R. Hackett
Francis Duffield — H. Wellington Yates
H. H. Bemis

Cardiac Committee

Walter J. Wilson, Chairman — Geo. P. McNaughton, Harry B. Schmidt
Norman E. Clark — Edw. D. Spalding
Douglas Donald

Welfare Committee

Frank R. Starkey, Chairman — Robt. A. Davis, W. G. Hastie
Jos. H. Andries

Research Committee

S. Edward Sanderson, Chairman — Harry L. Clark

Smoke Abatement Committee

R. E. Mercer, Chairman — H. H Sanderson, F. M Wehenkel

Detroit Clinical Bulletin Committee

A. H. Whittaker, Chairman, Receiving Hospital.
Chas. S. Kennedy, Grace Hospital.
Wm. R. Clinton, Harper Hospital.
R. C. Andries, Providence Hospital.
A. R. Hackett, St. Mary's Hospital.
B. B. Brunke, St. Joseph's Mercy Hospital.
Wm. Hamilton, Highland Park General.
Ira G. Downer, Jefferson Clinic.
D. J. Leithauser, Deaconess Hospital.
C. C. McCormick, Delray Industrial Hospital.
G. C. Penberthy, Children's Hospital and Michigan Mutual Hospital.
B. U. Estabrook, Herman Kiefer Hospital.

DETROIT PHYSICIANS' BUSINESS BUREAU

Board of Directors

Dr. Wm. J. Stapleton, Jr. — Dr. Wm. E. Keane
Dr. J. Albert Kimzey — Dr. Ledru O. Geib
Dr. Don A. Cohoe — Dr. S. P. L'Esperance

HOUGHTON COUNTY

In place of the regular monthly medical meeting of the Houghton County Medical Society, a picnic was held at the summer home of Dr. and Mrs. R. B. Harkness. The following invitations were sent to the members and their families:

The members and families of the Houghton County Medical Society will meet at the shack of Dr. and Mrs. Harkness, from five o'clock on, on Tuesday, September 7, 1926.

The shack is on Portage Lake on the Chassell Road, six miles south of Houghton. The place to turn in will be adequately marked on the left side of the road going south.

Bring your own basket luncheon; coffee, cream and ice cream cones will be furnished.

Do not be deterred by a small amount of rain.

The picnic was well attended and everyone present voted Dr. and Mrs. Harkness a kind vote of thanks for their hospitality.

Yours very truly,
G. C. Stewart, M. D., Secretary.

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

THE TREATMENT OF FRACTURES: With Notes Upon a Few Common Dislocations. By Charles S. Scudder, M. D., Consulting Surgeon to the Mass. General Hospital, formerly Assistant Professor of Surgery at the Harvard Medical School. Tenth Edition, Revised. Octavo volume of 1,240 pages, with 2,027 illustrations. Philadelphia and London: W. B. Saunders Company, 1926. Polished Buchram, $12 net.

The author's name at once arrests attention and appraises the authoritativeness of the text. We welcome this tenth revision and in reviewing we cannot impart its contents any better than to reprint the preface as follows:

The opportunity to revise and enlarge certain chapters and to add new material is welcomed. I have attempted in this edition to present the present knowledge of the non-operative and the operative methods of treating fractures.

It is very generally understood that rigid and strictly standardized methods of fracture treatment are undesirable and never can be developed. The variety of conditions attending a fracture will always compel the exercise of careful judgment in the choice of treatment. The reasons underlying the selection of any particular form of treatment are becoming more and more clear.

The present high development of (pathological) surgery makes possible and eminently proper today a safe operative treatment of this branch of traumatic surgery. Consequently, I have presented the operative treatment as a system by itself apart from its application to any particular fracture.

The method of conducting the operative treatment correctly, provided and only provided that it is indicated, should be understood and acquired by every surgeon of traumatism.

As the adaptation of treatment to particular fractures is better understood, through the accumulation of well recorded final results, each recent fracture will be treated more ideally and the maximum function will be secured in the shortest possible time commensurate with the nature of the damage done.

Special subjects have been prepared by certain men chosen because of interest, training, and experience. It

is fitting that fractures of the jaws should be considered by an oral surgeon.

The chapter on birth fractures is based largely upon the classical monograph of Dr. Truesdell of New York, N. Y., who has had a rare opportunity to study these conditions. The illustrations for this chapter are almost entirely from the original monograph by Truesdell. Sufficient material on massage has been presented from Dr. Mennell's book to orient the surgeon on this important subject. A perusal of Dr. Mennell's monograph will afford complete information. I wish to acknowledge here the assistance received from a multitude of sources. which I have indicated in the text and in the legends of various illustrations. Errors of omission will be gladly corrected if those discovering them will bring them to my attention.

The incidence of fractures is increasing in the United States. There were in 1924 upward of 155,000 caess of fracture treated in the A grade hospitals of the country.

The results of fracture treatment are too frequently deplorably bad. Crippling from fracture has been understood for years. The economic importance of crippling has been recognized comparatively recently. The surgeon's task is to prevent disability following fracture. The initial early treatment is the easiest and the most important. Most bad results are dependent on inadequate initial treatment.

To insure adequate treatment to a given case of fracture:

A Roentgen-ray record of the injured part should always be had immediately after the injury. The doctor must know what the exact injury is.

The honest intelligent use of a simple accepted form of immediate treatment is imperative.

In every doubtful and difficult case a consulting doctor from a nearby center or from the same town should be employed.

A record of salient facts should be kept. checking the progress of the case.

If it is decided that operative treatment is wise the delegation of this treatment should be to someone competent to do it. "Surgery today is being practiced by too many light hearted and incompetent surgeons" (Sir Berkeley Moynihan). Operations on fractures are difficult. Disasters may be terrible from the improper choice of operative procedures, from the inadequate conduct of the operation itself, and from the abbreviated and neglected after-care of the patient. If a physician cannot handle a fracture adequately well from the beginning to the close of treatment, he should be able to recognize this fact. and to so perfect himself in the initial early treatment that he will handicap neither the patient nor the surgeon who may continue the later more difficult care of the case.

THE SURGICAL TREATMENT OF GOITRE—Willard Bartlett, M. D., D. Sc., F. A. C. S. Cloth, pp. 364, 130 illustrations. Price $8.50. C. V. Mosby Company, St. Louis.

Bartlett is not a stranger in Michigan and we are familiar with his ability as well as his surgical acumen. We therefore welcome this monograph which reflects Dr. Bartlett and imparts his extended experience in the surgical treatment of goitre. The text leaves little to be desired. It deals in detail with present day procedures in the preparation, operation and after care of these cases. In discussing these features the author reflects a highly perfected technic that stresses attention to every detail. This spells satisfactory results, lessened morbidity and lowered mortality. Our only disagreement with him is in the matter of closure of the incision where a running suture or skin clips are employed. A subcutaneous suture is far more satisfactoy. On the whole every surgeon will find this text of exceptional assistance in his thyroid surgery. We commend it to all for study and the application of the rational tendered by the author.

A PRACTICE OF PHYSIOTHERAPY. C. M. Sampson, M. D. Cloth, 620 pp., 146 Ilustrations. Price $10. C. V. Mosby Company, St. Louis, Mo.

Sampson is not a stranger to those who have devoted time to this subject. Physiotherapy entails more than the purchase of apparatus and a haphazard application of electrodes or exposure to light rays. Basic scientific principles and their application must be known to these therapists ere this form of treatment be instituted.

Dr. Sampson imparts these fundamentals. Hence do we urge that if you are employing physio therapeutic measures that then you should observe the teachings of this recognized authority.

CLINICAL PEDIATRICS. By John Lovett Morse, M. D., Professor of Pediatrics, Emeritus, Harvard Medical School; Consulting Physician at the Children's, Infants' and Floating Hospitals, Boston. Philadelphia and London: W. B. Saunders Company, 1926. Cloth, $9.00 net.

This book imparts the Clinical experiences of the author. As such it becomes a welcome addition to our pediatric literature. At the same time it brings to the pediatrist and practitioner sound principles, methods of diagnosis and treatment. There is little to criticize, much to commend. A valued addition to every library and a source of authentic advice and help.

GOULD'S MEDICAL DICTIONARY, edited by R. J. E. Scott, M. D. 1398 pages. Flexible leather cover. Many illustrations and tables. Price, $9.00. P. Blakiston's Son & Company, Philadelphia.

This new Gould's Medical Dictionary is based upon current medical literature and contains the terms in use in all related sciences. About 76,000 words are included.

The reviewer can only commend in the highest terms that Medical Dictionary which is familiar to most of the profession. We can also add that of all the books on a physician's desk or on his reading table, this Dictionary should head the list. No man in active practice or in research work can for one moment afford to bc without this text. It is a labor for which the profession owes the editor and publisher a sincere expression of thanks.

"THE MODERN TREATHENT OF HEMORRHOIDS" by J. Franklin Montague, M. D. University and Bellevue Hospital Medical College. Cloth, 296 pages. 116 illustrations. Price, $5.00. J. B. Lippincott Company, Philadelphia.

The author has covered the question from every angle and in such a way as to render the book of unquestionaple value. There has been so much written on this subject that the literature is so scattered that it is difficult to sift the good from the bad. The author has done this and hence provides a most reliable guide. The facts are plainly discussed, methods are properly evaluated and ediological theories are presented from a rational standpoint. There is nothing empirical in the therapy. We welcome this addition to our literature.

ESSAYS IN THE HISTORY OF MEDICINE—Karl Sudhoff, M. D. Translated by various hands and edited By Fielding H. Garrison, M. D., $5 postpaid. Volume II of The Library of Medical History. Published by Medical Life Press, 12 Mt. Morris P'k. West, New York., N. Y.

An excellent volume, interesting in the extreme.

GOITRE AND OTHER DISEASES OF THE THYROID GLAND. Arnold S. Jackson, M. D., Madison, Wis. Cloth, 300 pp., 152 illustrations. Price $10. Paul B. Hoeber, Inc., 67 E. 59th St., New York.

Goiter is now one of the most important of problems, both medically and socially. It concerns the physician and surgeon, the chemist and the public health officer. The problem is of national concern, because the disease is on the increase in the large Goiter belt of the country and is extending across the continent.

This work is primarily intended to help the physician and surgeon by practical discussion of the lessons derived from intensive study and wide experience in the treatment of all forms of Goiter. Its purpose will have been realized if it succeeds, as the author hopes it will, in demonstrating and disseminating the following propositions and methods:

1. That the classification of Goiters should be into colloid, adenomatous (simple, toxic, and iodine hyperthyroidism) and exophthalmic.

2. That iodine should be administered as a preventive to all children between the ages of eight and twenty, who live in the Goiter belt.

3. That iodine in small amounts should be administered to retard the growth of the adenoma until the age of 21. This, in spite of the fact that iodine will not effect a cure in the presence of an adenomatous Goiter.

4. That iodine as a preventive of Goiter is of no value after the age of 21, has no permanent effect in the treatment of colloid Goiter and may easily induce hyperthyroidism.

5. That in cases of exophthalmic Goiter, the use of iodine is justified only when the diagnosis has been clearly established.

6. That the prevention and treatment of colloid Goiter are purely medical problems and involve a comprehensive system of organization throughout the Goiter area.

7. That adenomatous Goiters are to be considered as potential sources of hypertension, nephritis, myocarditis and malignancy. As such, they demand early surgical treatment.

8. That exophthalmic Goiter is a disease for the surgeon to deal with, and that its successful treatment calls for the close co-operation of the internist with the surgeon.

The publishers believe that this book is one of the most important medical publications of the past decade. They feel that they connot sufficiently stress its values. It is the outcome of the study and treatment of cases extending over years of hospital practice, and embodies authoritative decisions of the highest import.

An extensive bibliography is given but the author is ignorant of the fact that our Journal is published in Grand Rapids and not Detroit. We wonder if there may not be other errors in judgment.

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LATE NEWS NOTES

The Joint Committee on Public Health Education will meet in Ann Arbor on October 5th.

President Jackson's appointments will be announced in the November issue.

We want more news notes. Will you not send them? They serve as a medical record and history for our state.

Guess you've read enuff for this issue. If you like it, tell us. The November issue will contain a number of important announcements. Watch for it.

Monroe is purposing to establish a new hospital. It is to be known as the Southworth Memorial Hospital in memory of Dr. C. T. Southworth.

Harper Hospital Staff is tendering a dinner to Dr. Angus McLean on October 19th. This is in celebration of Dr. McLean's 40 years of practice. Dr. A. W. Blain is Chairman of the Committee on arrangements.

There were approximately 100 ladies registered at the Lansing meeting. The House of Delegates authorized the organization of a Ladies' Auxiliary. Steps are being taken to comply with this action. The president will appoint a Committee of doctors' wives to superintend details.

Post Graduate Clinic, University Hospital, November 11-12-13th. Your membership entitles you to enrollment. Three days of intensive clinical demonstrations. It is planned to have the Mayo Foundation lecture for one of the evening sessions. See the editorial in this issue and send in your enrollment.

COMPARATIVE METHOD FOR DEMONSTRATION OF NORMAL DEVELOPMENT IN INFANCY

Arnold Gesell, New Haven, Conn., (*Journal A.M.A.*, April 24, 1926), describes his method of demonstrating to junior students the developmental characteristics of two pairs of normal infants. respectively 4 and 6 months, and 6 and 9 months.

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Original Articles

INCREASING RESPONSIBILITIES OF THE MEDICAL PROFESSION*

CLARENCE COOK LITTLE,
President University of Michigan
ANN ARBOR, MICH.

Mr. President, I want to say just a few words about Dr. Darling. He is a person of whom the profession of medicine can well afford to honor and of whom the state of Michigan can also well afford to be proud. Those of us in Ann Arbor, even those of us who have come there recently, have become so fond of him, so deeply interested in him as a man that we feel that no President of a State Society could have been chosen who so clearly comprises the human qualities with marked achievement, great integrity and courage in his chosen field. It is a very great pleasure and privilege to come here tonight under his presidency of the State Society and to aid in whatever poor way I can the program of the meeting. (Applause).

I had not seen a copy of the address which Dr. Darling gave before he gave it, but it brings out a splendid connecting link with the few things that I have to say to you. If I talk about the increasing importance and responsibilities of the medical profession, please, those of you who are not members of that profession, try to look at its increasing responsibility as a part of your own problems as well as a matter to be laid at the door of the medical profession itself. Do this because one can't have an increasing responsibility on the part of a profession unless the community as a whole, the citizens as a whole are ready to enlarge and support that responsibility as it naturally develops.

The *preventive* phase of medicine, the effort to keep well rather than to cure has been referred to very definitely by Dr. Darling. It is the keynote of modern medicine. It has at once multiplied by many times the field of activity of the medical profession because instead of waiting until sickness occurs and then practicing its curative arts, the medical profession now reaches out into the citizenry and attempts to educate that citizenry so that it may prolong its periods of health and diminish its periods of sickness.

Now, when a profession, the chief activity of which has been dealing with disease, adopts that attitude and changes its emphasis, we can look for new factors in the situation. A change of that kind does not come about within a profession unless certain general factors underlying the population as a whole very materially change, and that, I believe, is the case as regards our commonwealth of Michigan and as regards the whole United States.

Preventive phases of medicine, then, apply to all people and as such there are certain very definite guiding principles that we may look forward to if we are to utilize that phase of medicine to its fullest capacity. In the first place, the inter-relation of the medical profession with the ordinary citizens of a state must begin early. Dr. Darling has said that it should begin in the form of medical examinations and that medical examinations should begin in the kindergarten. Yes, they should begin there and they should begin, if possible, further back than that, at the birth of children; and they should begin even further back than that, in maternal welfare and maternal care and examinations of potential parents. One should, in other words, begin to practice measures of preventive medicine just as early in the potential lifetime of an individual as one can. An ounce of prevention is worth a pound of cure. No truer statement was ever made. It is easier to apply an ounce of prevention to a situation when the situation is small and controlled, and it is easier to apply preventive medicine to a human individual when that individual is small and controlled. It becomes increasingly harder as the individual becomes larger physically, more complex psychologically and more difficult of geographical control, moving around as

* Delivered at the General Session 106th Annual Meeting Michigan State Medical Society, Lansing, September 1926.

a grown up human being in many different environments.

It stands to reason, then, that all sound preventive measures should trace back to the earliest possible time in the lifetime of any human individual. That is a common sense proposition. If you are trying to affect the course of a stream of water, catch it near its source; it is easier to divert, to modify, to do things with it at that stage than it is after it becomes a fully developed river.

Second, these examinations, these tests of a preventive nature should recur at regular intervals. Dr. Darling has also brought out that point. Such examinations should be continued at regular intervals during the lifetime of the individual because *rate* of development and *type* of development are very important phases of the life and activities of all of us. Some of us develop fast and some more slowly. Any of you who have passed through what almost appeared to be a permanent long-legged, gawky stage can realize what slow development is, and those of you who matured early and were a precocious child and were able to get ahead of your class in your studies and were "old" for your age realize what that meant to you.

There is a great deal of individual difference in the rate of human development, physical, mental and moral. The way to find out about the rate of development is to observe a thing at various periods along its route. If you have any doubt about that, get into a motor trap just once, and you will realize the soundness of the principle of determining the rate of progress by placing people at stated intervals. In just the same way medical examinations at stated intervals determine the method and rate and course of progress of growth of human beings. It is one of the most fascinating things that there is in the world to study today, and we know very, very little about it compared to what we shall know in the next 25 or 50 years. Begin the examinations early and continue them at stated intervals.

Third, make accurate records. It is no good to begin measures early and to examine people at stated intervals if we do not also develop the habit of recording accurately what we find out. Now that is a hard thing to do. It requires special training to make people accurate. Even in places where they are studying biometry an dstudying it very carefully and are going into the science of statistics, they know that as long as human beings have to record the information certain errors will creep in. Such errors can, however, be cut down to a minimum and can be foreseen and corrected if a whole-hearted effort is made to record information accurately. Today we do not know even the first thing about ourselves in that respect.

A man who is breeding thoroughbred poultry knows more about the life history of every single hen in his flock than he does about the life history and development of his own children. A man knows more about the rate of development and the record of trotting horses and professional league ball clubs and batting averages than he does about the rate of development and the nature of his own family. It has not been the fashion to put down on paper the records which could have been easily made and would have given us invaluable information, which we now totally lack.

Most of you who have been brought up in the country know the old method of backing the family against the wall as they were growing and putting the book over the head and recording on the wall the various steps up; and you could see the growth. Very, very few people in the medical profession have the time or the inclination at the present time to make any more careful records of their different cases than some such old fashioned sort of procedure. In order that records may some day be brought together and studied by other individuals, accuracy should be encouraged. It has not, up to now, been the fashion, but it must become the fashion if we are to gain any real advantage of taking preventive measures and of making frequent examinations.

That brings me to the fourth and last important phase. In addition to beginning early to make frequent examinations and careful records, the records must be collected and kept where they are available for study. Always, in order to save time, to save human effort, to save money, to save human life, it will be necessary to have such records as we possess where we can reach them easily. A town may have more in its library books than a neighboring town, but if the books are not carefully kept in the building where they can be reached, it does not help in educating the citizens of that town to have two or three or one hundred times as many books as their neighbor. We may make many examinations and keep careful records but if we do not have central stations for the filing of those records where students of medicine and sociologists and other people interested in human health problems can go for study, the effort will largely be wasted and will have to be repeated again every generation. Mind you, if it had been done for 100 years we should be at least 50 or 100 years ahead of the present time in our knowledge of human diseases and how to prevent them.

I think there is no question but that if we had records, we could do very much in the way of progress that is now impossible and

will remain so until we take pains to collect them.

You see there appear to be two very interesting theories in a profession, in a community, in a state, in the country, in the world at large; one is that the existing order of things is good enough, it is comfortable, we can live through it fairly successfully, in spite of Dr. Darling's statement of the cost of preparation for dying. We can even die under it a good deal more comfortably than people used to be able to. In general, it is a pretty good world materially for human animals. There is no question about that. Our food is brought to us with fair regularity; our lodgings are better than they used to be. Our heating and lighting is greatly improved; our methods of transportation are excellent and there is a great temptation to say we are stable, we are secure, we are "all right." Please remember that every civilization that has gone before us, every great human development which has come and gone, could have said the same things. "We have a better system of this, that or the other than the previous civilization, and we ought to survive." Every one of them could have said that, but not one of them would have told the truth if they had done so. There is no reason to believe, without proof at least, that our civilization is immune to the ills that other civilizations have felt. In fact, there are distinct symptoms from the point of view of sociologists that we are already suffering from certain diseases in a fairly aggravated form.

One theory, however, and it is the common one of the ordinary pleasure-loving, happy-go-lucky and extremely lovable type of citizen, is that he doesn't have to worry, he will get along somehow and he will buy his life the way he buys his Ford, with five dollars down and the rest paid up as he goes. Most people are content with that and it works fairly well *for the individual.*

The second theory is that the present time man by his own numbers has created an entirely new environment for himself. Now that at first appearance may sound rather radical, but I believe that a moment's consideration of what is actually happening all around us today will show that the present generation is being brought up in what might be called an entirely new social environment. This country has grown tremendously in its amount of population and the very growth of that population has created an entirely different situation, educationally, religiously, economically, medically, and indeed in every conceivable way. It has made possible the development of specialists in the great cities; it has made possible the cities themselves; it has made possible the railroads to the extent that we find them because of the immense amount of freight transportation. Such things are utterly unnecessary and non-existent in a smaller place where the inhabitants are more scattered. It has brought about the spread of epidemics. It has made possible preventive medicine because people are gathered together in greater groups where they can be more readily reached. As long as mankind was sparsely scattered through this country he could be just as much as he wanted a wild ass of the prairies and he could bray just as loud as he wanted and nothing but the sunset and the hills around him heard his voice. But that isn't true any more. We are all very much dependent upon each other. We are so dependent upon each other that we take a good proportion of our "out-of-school" education from the daily paper. Ho much do all of you know about an event like yesterday's election beyond what you have read in the paper? How much do you really *know* about it? You ought not know anything more about it than the one vote that you probably cast or possibly, if you could get together with your wife and make her tell you the way she voted, you might know about two votes.

In the long run we take our education from a centralized organization and we take everything from organizations which are the product of great numbers, great masses of people. Therefore, the second theory, the theory that mankind is in a new environment and must do new things to meet that environment seems to me to be, of the two, the correct theory. There are certain things perhaps that will bring that out more clearly.

In the first place, we have the interest in international reactions, the contacts between nations. Why is that? Why is it that we are interested in European problems more than we were? When people were sparsely scattered in this country and our commerce and our food supply were largely matters of internal interest and our expansion was that of internal growth, we were little interested, but when we and other nations became so large that colonization and invasion was a matter of interest, then the international phases of existence become extremely important.

When a baby is so small that it can't pull itself up to the sides of its own crib, the crib is its world and it pays no attention to the people who come and go through the room, but as soon as the baby outgrows the crib, what happens around it in the room becomes a matter of very great interest. When a nation begins to outgrow its crib and pulls itself up by its hands and looks over the edge of the crib, it becomes interested in the people who later it is going to know. It is a sign of a different environment, a change,—an increase in vision,

some people say, and quite correctly so. The child can see farther than it could when all it could visualize was the walls of its own crib. The *world* can see farther than it used to because there are more people in the room and they are more dependent upon one another.

The changes in governmental control are another indication. When there were relatively few people, it was fairly easy to centralize them around a central governing man or king, a "chief man." When people get so plentiful that they can build up small centers of their own interests, they are apt, figuratively speaking, to thumb their nose at the man who says, "You have to come and report to me every five minutes and tell me what you are doing." People do not instinctively like central control. As a result one finds that democratic forms of government are growing. Why was it that we changed into a democratic form of government as we did? Because as far as our relations were concerned, we were ready to grow, and as far as we can see England was not ready to have us grow at the rate we were ready to expand. It was a question again of the individual reaching a stage where it insisted upon a rate of expansion commensurate with its own powers, and that today is probably the reason why there are new forms of government.

There was no Soviet government in the world a few years ago. Now a great nation is trying the experiment of it. From what we can tell at this distance, it appears to be very largely wrongly conceived, but it certainly is a straw that shows that the wind has been blowing in the direction of a new environment, a new social order. One finds also that the old European nations are not increasing the power of the king. Occasionally a dictatorship is made, but a dictatorship has seldom continued far beyond the life of the man responsible for it. In general there is an unrest, perfectly definitely characteristic of a change of seasons, a spring time, if you please, to look at it that way, in the affairs of mankind as a whole. There is a change from one season to another, and all the signs of government tend to show that.

Legislation governing taxation of the individual is infringing upon matters of personal wealth and its distribution in a way which it never did when there were fewer people to be considered. Does that mean a new economic environment or not? It seems to me perfectly clear that it does. Income taxes, inheritance taxes, things of that kind becoming general in application are a perfectly definite sign of the interdependence of individuals. They no longer are able, as I said before, to stand out on the prairie and make their voice go up against the empty skies. There are too many other people near them now, they are all interdependent.

Take again the various types of building. A man could build any kind of a house he wanted to one hundred years ago. Now in certain regions homes are very definitely restricted. They are inspected, they are watched over, they are limited when they are not of certain prescribed types. The social order is reaching in to man's habitation and telling him what kind of a house he must live in up to a certain limit. That was not even in people's minds before the great numbers of human beings made it necessary.

Pure food legislation. When people were raising their own foods, when there weren't such great masses to be fed on canned and prepared foods, there seemed to be little need for it. A good many people were raised on farms before pure food legislation ever was thought of, practically speaking. Now it is an absolute necessity for a healthy, well ordered community.

Perhaps more than in any other place do we find clear signs of the changed times when we consider the problem of immigration. Before the war, before we became conscious of how crowded the world was, it was a very unpopular thing to speak of restriction or selection of immigrants. When the war came the restrictive legislation went through like snapping one's fingers and today one finds an increasing, rather than a decreasing tendency to consider carefully the type of people we allow to enter the United States. This is true as regards the type of adult, obvious, living, moving people we allow to come. Could there be anything more clearly a definite invasion of personal rights? Is there any clearer indication necessary that the times have changed and that the American public has admitted that no longer can the individual from here or there say, "I come and I go, I do or I don't as I please"? The individual has become primarily responsible to the state, to the country, to his fellowmen. That is a very, very big advance and it is a tremendous strain for some mentalities. Some whole races of people, some whole organizations, some whole groups of individuals fail entirely to get that point of view. They are living in medieval mental surroundings. The medical profession, however, can not continue to live in such medieval surroundings. I think it recognizes that very clearly, and I think it has moved out and has demanded for itself the increasing responsibility of saying to an individual, "For the public welfare you must do so and so, or you must not do so and so."

The restriction of the feeble-minded and

their segregation is a step in that direction. The sterilization of criminals of certain types is a step just along the same idea as restriction of immigration, it is exactly the same thing. You are saying to that person, "You can't send any more immigrants in the form of your children into the United States." We would say it definitely to an adult foreigner who is a criminal, why shouldn't we say it to one of our own people? It is exactly the same logic at the basis of both of those pieces of legislation, it is exactly the same proposition.

The great Ego, the great individual who could stand up and say, "I demand my rights," is rapidly going out of existence. It is something to be devoutly thankful for. In his place is coming a type of individual whose motto appears to be largely, "How is what I am doing going to affect my fellowman?" Just think of what a tremendous and splendid change that is. After centuries of greed and rapaciousness and of selfishness, the young people of today for the first time find themselves on the threshold of a new order of things. Now educators are going to help them, and preachers are going to help them, and parents are going to help them, but I doubt whether anybody can make the American people come to its own sense of proper humility any faster than the medical profession if it has the courage to do it. If you can possibly see the immense vision that there is and can have the courage to preach and practice public consciousness before self-consciousness, you will be doing a very great service.

It is a question in my mind as to whether the general public will meet that with any degree of applause. The chances are that they will make it hard for you, that you will be branded as visionary, radical, impractical, false to the existing tenets of your profession. You will not be particularly popular and the more powerful the individual and the more material goods he has his hands on, the more he will object to that type of philosophy. But from our very size the fact that the world is pretty nearly full of these human beings like ourselves is something from which we can not escape. Some people regard it as a tragedy and would rather keep power and selfish sway. Other people see it as a great challenge to our civilization, a great challenge to humanity as a whole.

You people in the state of Michigan do not quite realize what a reputation this state has earned outside of its own borders. You are looked upon as probably the most advanced state, educationally and sociologically combined, of any in the Union. How did you get that reputation? You got it by allowing your professions the right to be educated and by giving them a freedom of activity which was their right. You will continue in your leadership as long as you have the courage to stay there, but the race is getting harder. I don't mean the competition from other states, I am not worried about that; the more of them that progress, the happier we shall be as a people. I mean that the competition from inside of yourself, from your material surroundings is getting harder all the time; there are more newspapers with an individual point of view to control your independent thinking and wipe it out of existence; more industries with material wealth trying to ensnare you, trying to catch you and kill your idealism. Don't let it do that. The people who came out here and founded this state, who gave you the first clearly active state institution of higher learning, mean something in your life. They mean an ancestry to the social background of this state that ought never to be forgotten.

As I see it, there never was a time in the history of mankind when the intelligent effort of a profession was more needed than at the present time. Your chairman was kind to call me sincere. As I see it, I do not stop to think whether I am sincere or not, all I know is that never before have I realized the full beauty and value of human life to the extent that I do at the present time. Never have I realized the obligation that goes with being a citizen of a democracy. It is not any easy job; you can "loaf" on it and you can "get by," as I said earlier, but you can't be a good citizen and a growing citizen unless yo uwork and unless you suffer. It is for that work and suffering, as I see it, that we are all called at the present time. It is not going to be an easy future for this country of ours, no matter what we do for it; it is going to be an almost impossible future if we do not allow courage and clearness of vision and honesty to shape whatever action we attempt. In that effort and in the belief that the medical profession of this state is going to be a leader in that respect, I feel confident that the state of Michigan will never go backward in those matters, that it will never allow a matter of personality here or personality there to sway it from the proper purpose. If and when in a position of authority within your state, whether it be political, educational, religious or professional, a man or men stand in the way of clear vision, honesty and courage, get rid of them as fast as you can, it makes no difference where they are. As I say, in the belief that the medical profession of this state stands on a firm foundation and is going to assume the leadership in courageous social thinking, I feel very happy and I thank you all tonight for listening so attentively to what I have had to say.

SURGERY OF THE TUBERCULOUS*

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The widespread prevalence of tuberculosis and the fact that no organ in the body is immune to attack by it serves as an explanation of the selection of surgery of the tuberculous as a topic for discussion before an audience comprising all sections of your Society. Surgery of the tuberculous lungs, bones and joints has been intentionally excluded. The remainder of the subject may be conveniently considered under three heads or groups:

1. Surgery done for the relief of tuberculous lesions in patients presenting no demonstrable pulmonary involvement.

2. Surgery done for the relief of tuberculous lesions in patients presenting pulmonary tuberculosis.

3. Surgery done for relief of non-tuberculous lesions in patients presenting pulmonary tuberculosis.

For the purpose of discussion the records of 145 patients operated on for the relief of tuberculous lesions, and falling in groups 1 and 2 have been examined. They show a distribution of tuberculosis as follows: Cervical lymph nodes 57; uterus, tubes and ovaries 17; appendix 4; peritoneum 32; kidney and ureter 21; testicle and epididymis 11; breast 2, and tendon sheath 1. A family history of tuberculosis was obtained in 29, or 20 per cent. Active disease existed in two or more systems or organs in 26, or 18 per cent, while in 120 it presented as the so-called primary surgical tuberculosis. In its surgical aspect it is essentially a disease of early adult life, the average age of 145 patients being 30.7 years, youngest 3, oldest 62.

GROUP I.

Surgical Tuberculosis Without Demonstrable Pulmonary Lesions—The accepted routes of entry are the tonsils, respiratory and gastro-intestinal tracts, and the types of bacilli are the human and animal, notably bovine and avian. Where no direct connection can be established between one of these avenues of entry and the site of the tuberculous disease, it is assumed that mucosal entrance with lodgement in the adjacent lymph nodes has occurred with arrest or quiescence in these situations. In this connection the report of Bugge is of much interest. He was able to demonstrate the presence of tuberculosis, healed or quiescent, in the bronchial lymph nodes in 75 per cent of the bodies coming to autopsy, in which during life no evidence of the disease had been detected. Systems of lymph nodes most commonly involved are, in the order of frequency, the bronchial, cervical, mesenteric and retroperitoneal. Granting the presence of tuberculous infection in such nodes the involvement of various organs may then occur by way of the blood stream or through the intercommunication of the various lymph systems by means of the anastomoses which exist along their margins, an autogenous or endogenous infection—reinfection. This emphasizes one practical point ever to be borne in mind when dealing with surgical tuberculosis, namely that it is always secondary to a focus located elsewhere in the body, even though such focus eludes detection. In our own experience the X-ray has not infrequently shown evidence of a healed pulmonary lesion, when the history and physical examination of the patient gave no grounds for suspicion as to its existence other than the presence of a surgical tuberculous lesion, the presumable origin of which was thereby made inferentially clear.

The chief problem presented by patients falling in group 1 is largely one of diagnosis, since if an extrapulmonary lesion exists, and accumulated experience has demonstrated the efficiency of surgical treatment in such, evaluation of the patient's physical condition and the extent of the lesion determine the character and the extent of the treatment. This latter may be postulated as wide resection of diseased tissue with or without subsequent irradiation as location and extent of lesion may indicate.

The choice of anesthetic in the first group does not demand the same consideration as in the second and third, and while local ether by inhalation and by rectal administration, and gas oxygen have been employed in the present series, local and gas-oxygen anestresia have latterly been given the preference for reasons to be mentioned later.

GROUP II.

Surgery Done for Relief of Extrapulmonary Tuberculous lesions in Patient Exhibiting Pulmonary Tuberculosis—It would seem at first glance that the employment of surgery in such cases is contra-indicated, yet it is logical to assume that the cure or arrest of an early pulmonary tuberculosis may be made possible by the removal of an advanced deposit elsewhere, the combined effects of which if left alone would form a load greater than the patient could carry. The lesions in which we have thought it wise to do this involved the peritoneum, appendix, tubes, kidney and testicle. The employment of surgery in such cases has been limited to those in which the patients came

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under observation with the pulmonary tuberculosis in an early stage, the distant lesion of surgical character, and in most of the cases so treated has been in a rather advanced stage. The removal of a pyonephrotic kidney, from which toxin absorption is both depleting the patient's vitality and giving rise to a toxic nephritis of the opposite kidney, will give such a patient the only possible opportunity of arresting the pulmonary lesion. Not that such a procedure will give a good result in every case, but its possibilities are such that the patient should be given the opportunity to make use of them. The same holds true of peritoneal, testicular, tubal and appendicular involvement. To determine the fitness of a given patient for such treatment involves a careful study of the general condition, the pulmonary and local lesions; always substandard, advantage of every factor for safety should be taken with such patients. In preparation for operation, rest, food and blood transfusions are of the utmost importance. The operative procedure involving the least trauma, manipulation and time of effort should be selected. Notwithstanding the repeated assertion that ether does no more harm to the tuberculous lung than it does to the healthy lung, it causes sufficient irritation to be potentially harmful in every case, consequently local and gas-oxygen anesthesia, alone or in combination, has been given preference. The increase in blood pressure incidental to the administration of gas-oxygen theoretically predisposes to pulmonary hemorrhage. In practice I have never seen this occur, but bearing its possibility in mind prefer to use local anesthesia, with, when necessary, the addition of sufficient gas-oxygen to tide over such part of the operation as can not well be carried out with local alone.

Cervical Lymph Node—Of the 57 patients presenting a localization of the disease in this system, 43 were females and 14 were males; the youngest was 3, the oldest 57; two were in the first, nine in the second, 20 in the third, 11 in the fourth, eight in the fifth, and seven in the sixth decades. The involvement was bilateral in 6, unilateral in 51. The operative procedures consisted in excision or incision of abscesses in 6, excision of the nodes in 45, 6 bilateral and 39 unilateral; in the earlier cases block dissections were done, in the later ones removal of the enlarged nodes with subsequent irradiation has been the procedure of choice; in 5 with pulmonary and 1 with vertebral coincident involvement irradiation alone was employed. The pathology presented, while always characteristic of the various stages of tubercle, varied from discrete nodes of moderate enlargement to massive, matted groups, and from solitary abscesses to those presenting multiple foci of softening with one or more sinuses. When localized to one group, the submaxillary has been most frequently affected and next the deep carotid; not infrequently the nodes of both triangles showed rather extensive involvement. The diagnosis at times quite apparent, at others requires to be differentiated from that of hyperplasia noted with long standing oral and tonsillar infection, syphilis, lymphatic leukaemia, Hodgkin's Disease, lympho-sarcoma and metastases from malignant growths. The history and physical examination of the patient with the conformation and character of the local enlargement plus the blood analysis will suffice in most instances to distinguish between these, while in others the removal of a node for microscopical examination is necessary to the correct solution. Granted the diagnosis, which is the best treatment? It is agreed that a dietary, hygienic regime is advisable in all forms of tuberculosis. In infants and young children such a regime with the addition of irradiation offers the best results. The advocates of irradiation claim that tuberculous cervical lymphnoditis is no longer surgical, that all cases are curable by such treatment. The writer still believes in the excision and incision of abscesses and the removal of enlarged nodes on the basis that the ablation of massive foci at once relieves the patient of a definite burden and thereby affords greater opportunity for upbuilding resistance. The post operative employment of irradiation is decidedly advantageous in that sinuses and further node enlargement are as a rule obviated and since adopting its employment recurrences have been reduced to a minimum.

Uterus, Tubes and Ovaries—Of 17 women with tuberculosis of the pelvic genital system two had demonstrable disease in the lung. Their ages varied from 19 to 62, average 33.6 years. The disease occurred in the tubes in 8, tubes with miliary involvement of pelvic peritoneum in 1, tubes and appendix with miliary involvement of the pelvic peritoneum in 1, as an ovarian abscess in 3, and in the endometrium in 4, 1 with fibromyoma, 1 as a pyometra, 1 with the tubes, and 1 with the tubes and one knee joint. The operations consisted of a removal of tubes and appendix in 10, tubes, ovaries and appendix in 3, panhysterectomy with appendix in 2, hysterectomy and appendix in 1, and vaginal hysterectomy in 1. In the latter instance, a woman of 62 had suffered with a prolapse of the uterus for years, which shortly before coming under observation had become painful; at operation a pyometra was found which upon microscopical examination proved to be tuberculous. It is interesting to note that one of her children recently reported with tuberculous

cervical lymphnoditis. The pre-operative diagnosis of tuberculosis of the female pelvic organs is by no means easy, particularly in the absence of other recognizable foci. In none of the 4 showing involvement of the endometrium was the diagnosis made prior to operation, then only 2 in which the character of the accompanying tubal disease was unquestioned, while in the remaining 2 it was first made in the laboratory. In the ovarian abscesses the diagnosis was made in none before operation, in 1 at the time of operation, and in the remaining 2 the character of the disease was first recognized by the laboratory. All three of these occurred in married women, all showed a secondary pyogenic infection and in all three the pelvic mass was assumed to be a suppurative salpingo-oophoritis of pyogenic type. Tuberculosis of the ovary is comparatively rare, particularly when unassociated with similar disease in the tubes; it is ordinarily unilateral, while tubal tuberculosis is commonly bilateral. The recognition of the latter, with a family or personal history of tuberculosis to direct ones attention to it may not be difficult; or in virgins presenting masses in the tubal regions with the accompanying menstrual and pelvic distress the probability of tuberculous salpingitis suggests itself. In the absence of virginity, while one may readily recognize the presence of tubal disease, a determination of its tuberculous character is not so readily at hand. When one bears in mind that approximately 50 per cent of tubal disease follows in the wake of pregnancy, interrupted and full term, 30 to 35 per cent in the course of gonorrhoea, 5 per cent being due to accidental contamination and 10 to 15 per cent to tuberculosis, the difficulties of a differential diagnosis become apparent. Reliance must in large measure be placed upon a careful analysis of the patient's history, realizing that when a family or personal history of tuberculosis is lacking, when no focus of the disease is discoverable elsewhere and when virginity is absent, the correct diagnosis will usually not be determined until the tubes are exposed to view; this is more particularly true if a secondary pyogenic infection has been engrafted on the tuberculous one. Since the treatment offering the greatest chance of relief is the removal of the tuberculous foci occurring in the pelvic organs, after all, the most important element in diagnosis is a recognition of surgical sufficiency early to give such patients the chance which ablation of such foci offers.

Peritoneum—Of 32 patients with tuberculous peritonitis, 10 were males and 22 were females; the youngest was 10, the oldest 53, average age 30.3 years. These may be conveniently subdivided into 3 series, one in which recovery might be expected, one in which intestinal obstruction was a complicating feature, and one in which intestinal fistulae had followed operations elsewhere. In the first series there were 8 males and 16 females; in 1 male the appendix, and in 7 females the tubes could be demonstrated as distinctly tuberculous and inferentially the starting points of the peritonitis and were removed; in the remaining 16 these organs either could not be visualized or were found free of disease other than the miliary tubercles in their peritoneal coats, the operation consisting of incision and evacuation of ascitic fluid. Early pulmonary lesions were present in 3. The second series comprised 5 cases of advanced adhesive peritonitis with obstruction; an enterostomy was done in 2, an ileo-colostomy in 1, and 2 presented such extensive intestinal matting that nothing was done other than the exploration; 2 died in the hospital, 2 within a year, and 1 is still living 10 months after operation. The third series consisted of 3 females who had had pelvic operations elsewhere followed by intestinal fistulae; at operation it was found that the tubes of all three had been removed and that localized pelvic peritonitis with fistulae were present; resection of the intestinal segments in which the fistulae were located was carried out with cure of the fistulae in two and a recurrence of the fistula in 1. The pathology has varied with the stage at which the disease was observed; miliary tubercles with ascites, no adhesions, both with and without disease in the appendix and tubes; adhesive peritonitis with ascites, in some instances the adherent coils of intestine and omentum so walling off the fluid as to give it the physical signs of a cyst rather than an ascites; fibrous peritonitis with caseation; and localized abscess in tubal or appendicular region with miliary tubercles scattered over the peritoneal surface. The diagnosis in the ascitic type depends on the presence of the fluid, mild fever, absence of leucocytosis, progressive loss in weight, secondary anemia and the exclusion of the heart, liver and kidney as causative factors in the production of the ascites. This picture is not incompatible with abdominal malignancy, especially as patients approach the cancer age; a distinction can usually be made between the two by removing the ascitic fluid when palpation of the abdomen will reveal the malignant growth. At times the agglutination of intestine and omentum is such as to prevent one feeling confident of his ability to tell one from the other by such palpation, in fact, I confess that with the abdomen open I have at times been unable to say whether the pathology represented a peritoneal tuberculosis or a diffuse abdominal carcinosis, having to defer to the microscope the final decision. Neither is it always possible, with the abdomen open, to lo-

cate the lesion from which the peritonitis sprang; we know that it is always secondary to some other focus and that if this latter is within the abdomen the patient's chances of cure are greatly increased by its removal; mesenteric and retroperitoneal nodes, the tubes, the appendix and the bowel, notably the caecum, are the common points for such origination and where visualization is not prohibited by intestinal matting should be examined and such of them as lend themselves to such procedure should be removed when found tuberculous. Whether or not such a focus is found and removed the rationale of the cure of tuberculous peritonitis by operation is not clear; the evacuation of a fluid of low bactericidal power with the substitution, by exudation of a fluid with a high bactericidal power, the relief of tension, the entrance of air into the abdomen, all have been suggested, but are inadequte for a logical explanation. In any event surgical treatment offers a 75 per cent cure or arrest of the disease in this membrane. In view of the beneficent effect of irradiation observed in tuberculous lymphnoditis, it was used as a postoperative adjuvant in one case subjected to operation one year ago: a woman, 42 years of age, with ascites and extensive intestinal and mesenteric matting filling the pelvis and part of the abdomen, preventing visualization of appendix and pelvic viscera, was treated by evacuation of fluid through incision and later deep X-ray therapy over abdomen. Palpation now reveals a soft, flaccid abdomen with no masses, she has gained 40 pounds in weight and, with the exception of the nervous symptoms of the menopause induced by the irradiation, is symptomatically well. Such an experience would suggest further study and investigation into the propriety and possibilities of deep X-ray therapy in similar cases.

Kidney—Of 21 patients with renal tuberculosis 9 were males and 12 females. Ages 19 to 55, average 32.3 years. In 8 the left kidney and in 13 the right was involved. A pulmonary lesion was present in 3, 1 gave a history of leg amputation for disease of knee joint, and 1 of removal of the testicle for tuberculosis four years before. Vesical irritability has been the most commonly noted initial symptom, although entirely absent in 2. The irritability apparently bears no relation to the degree of renal involvement, being severe in some instances of moderate renal disease and mild in others with extensive renal distruction. The urinary signs consist of pyuria and hematuria, the former slight at first, but practically always copious in the later stages, the latter intermittent or continuously microscopic, rarely of large or even moderate amount. While an acid, purulent urine containing no pyogenic organisms strongly suggests tuberculosis, the presence of such organisms by no means excludes this disease, since sooner or later in its course a mixed infection is responsible for their constant appearance. Colic has been infrequently noted and then of mild intensity and duration; in some a total absence of pain referable to the kidney, in others a dull ache in the loin was present. The general condition varied with the stage at which the disease was seen; renal tuberculosis is essentially chronic and in the vast majority of cases is unilateral in onset. In two patients presenting bilateral disease at the time of coming under observation and which the writer had opportunity of following, one died at the end of the eight years from meningitis, the other at the end of six years from renal deficiency plus sepsis. If seen early in its course the general health will not have greatly depreciated, while with the onward course of the disease there is a gradual loss in weight, lowering of vitality, and progressive anemia. When the local lesion assumes a pyonephrotic type the mass can usually be palpated, otherwise palpation frequently gives little or no information other than the elicitation of tenderness on deep pressure. It is conceivable that with the atrophic changes and destruction of the involved kidney in the absence of retention, the healthy kidney may be the larger of the two due to compensatory hypertrophy incidental to its assumption of double function. I have never observed but one instance of autonephrectomy in renal tuberculosis. The patient, a male, age 42, was seen in the last stages of anuria and the history obtained that the left testicle had been removed for tuberculosis 20 years before. Autopsy revealed the anuria to have been due to a calculus obstructing the ureter of the right non-tuberculous kidney and the left kidney to be represented by a small nodule of tissue presenting the pathology of tuberculosis and containing but microscopic amounts of renal parenchyma. While the diagnosis may be strongly suspected from the history and physical examination it after all rests with the cystoscope and the laboratory. The X-ray in showing the size and shape of the kidneys and at times the presence of calcified areas easily distinguishble from calculi is of minor assistance. The cystoscope reveals pictures within the bladder varying from normal through the sundry stages of toxic cystitis to definite infiltration and ulceration, diminution in its distensibility and more or less characteristic changes at and around the ureteral orifice, presenting to the skilled examiner significant evidence. A study of the two kidney urines with a differential phthalein functional test gives the information upon which the decision for operation must be based. The bacilli can be usually, but not in-

evitably, found upon repeated smears of the centrifugalized urine. While the guinea pig inoculation test was employed in the earlier cases of this series it has been discarded in the belief that the needed data can be obtained by the above outlined routine. A correlation of the various tests with a judicious employment of that most valuable attribute, judgment, is essential to a correct solution. Tubercle bacilli may filter through the kidney without causing disease therein; the writer has had the mortification of removing a kidney from a patient who gave a history of amputation for tuberculous joint disease and who showed tubercle bacilli, pus and blood in her right kidney urine, only to find that the microscope failed to reveal any evidence of tuberculous disease. The verdict for operation should be based upon the finding of tubercle bacilli, pus, blood and a definite impairment of renal function on one side with, so far as ascertainable, an absence of tuberculous disease on the opposite side. The urine from the presumably healthy kidney not infrequently shows the presence of albumen and pus, the interpretation of which may be equivocal, either toxic in origin or indicative of beginning tuberculous disease. Knowing that while the disease is almost invariably unilateral in its onset it sooner or later affects the second kidney, it behooves one under like circumstances to go slowly, to repeatedly examine such urine for bacilli and to be assured of a lack of renal deficiency. In the event that tuberculosis should develop in such a kidney after removal of its fellow of the opposite side, one would at least have the consolation of having exercised the precautions which our present day knowledge affords. The belief is expressed that nephrectomy should not be undertaken upon the finding of bacilli in a kidney urine even with the presence of microscopic pus and blood when there is no impairment of renal function; such findings represent bacillary filtration or a beginning tuberculosis, in either event a dietary, hygienic regime is the treatment of choice. Again in the very late cases, as well as those exhibiting bilateral involvement, nephrectomy is futile and should not be attempted. Between these two extremes the disease often reacts kindly to nephrectomy, the bladder lesions heal, discomfort and distress are relieved and improvement in general health is made possible.

Testicle and Epididymis—The disease was located in the male genital tract in 11 patients, age 17 to 44, average 28.1 years. In 6 of the 11 distant foci of the disease were present. In 6 the testicle was involved with the epidymis and both, with the vas, were removed; in 2 of these the castration was done as a palliative measure on account of abscess formation, both showing renal involvement; in 2 the prostate and vesicles were palpably nodular, both dying within 3 years, 1 from pulmonary and 1 from miliary tuberculosis. In 5 in which the testicle was apparently free, epididymovasectomies were done; 1 of these returned 4 years later with a localization in the kidney. The diagnosis of tuberculous epididymitis is based on the insidious, painless nodulation developing therein in the absence of the ordinary posterior urethral and prostatic infections; tuberculosis may develop in the presence of the latter and, contrarywise, such infections may give rise to an indolent epididymitis of inflammatory character which greatly similates the tuberculous type. The vas may be beaded in both, but most frequently so in the tuberculous. If the condition is bilateral, if there has been a prior orchidectomy for similar disease, if scrotal sinuses are present of a duration of more than 1 month the lesion is most probably tuberculous; finally, if tuberculosis is present elsewhere, and it is in approximately 50 per cent of cases, the diagnosis is at hand. There has been much discussion as to the primary starting point in male genital tuberculosis; it has been held that it was most frequently a blood borne infection with localization in the epididymis, extending from there up the vas to the prostate, seminal vesicles and in a large percentage of cases down the opposite vas to the opposite testicle. On this belief such operations as described above have been predicted. At first orchidectomy was practiced; noting the frequency with which the second testicle became infected epididymo-vasectomy was resorted to with the aim of saving the testicle with its internal secretion. The fact that once established in the genital tract it progressively involved other portions and also showed marked predilection for extension into the urinary system led Young and others to a detailed study of the situation. The conclusion he has reached is that the primary site of genital tract disease is, in practically all instances, the seminal vesicles, from which point it progressively extends, involving both genital and urinary system. He has devised an operation for the removal of the vesicles, lobes of the prostate, both vasa deferentia and both epididymes, which, while radical, offers the hope of removing the local disease entire.

Appendix, Breast and Tendon Sheath—There were 4 cases of tuberculous appendicitis, all occurring in young patients with pulmonary disease, the removal of the appendix being undertaken to secure relief from discomfort and continued digestive disturbance. The two patients presenting tuberculosis of the breast, 37 and 42 years of age, showed no distant focus: in one the axillary nodes were infected, in the other not. One presented a discharging sinus,

in the other the skin was intact. The breast was amputated in both with axillary clearance of infected nodes in one. Involvement of the synovial sheaths of the flexor tendons at the wrist was noted in a man of 50. Extensive dissection gave an apparent cure with recurrence at the end of 6 years. A second operation followed by irradiation was carried out with again an apparent cure which up to this time, now two years, still persists.

The primary or operative mortality in the 145 patients was 8 or 5.5 per cent. I regret that lack of a complete follow up prevents my giving you the ultimate results. The belief, however, gained from known results warrants the belief that surgery in these two groups is well worth while for the relief of symptoms and the prolongation of life.

GROUP III.

Surgery Done for the Relief of Non-Tuberculous Lesions in Patients Presenting Pulmonary Tuberculosis—The choice of anesthetic for all patients falling under this classification is the same as for group 2, namely local alone, or as needed, in combination with gas-oxygen. The surgical emergencies such as perforating gastric and duodenal ulcers, acute appendicitis, ruptured tubal gestation, fractures, etc., do not permit of discussion; granted that the pulmonary tuberculosis has not reduced the condition of the patient to a point that he or she is in extremis, such urgent lesions should receive the surgical treatment otherwise accorded them. It is the elective cases that demand our study, morbid states such as chronic gastric or duodenal ulcers, chronic cholecystitis, and appendicitis which by interfering with digestion hinder nutrition; fibromyomata which induce anemia through blood loss; pelvic inflammatory disease which lowers vitality through suffering and the absorption of toxins; prolapse of the uterus of such degree as to inhibit normal activity; toxic goitre, hernia, hemorrhoids and a host of ailments which by adding to the load which patients with pulmonary tuberculosis must carry indirectly retard their recovery. The factors to be considered in determining the advisability of operation in such are threefold:

a. Extent and activity of the pulmonary disease.

b. Extent, character and harmful influence of the non-tuberculous lesion.

c. Whether or not the proposed surgical procedure is within the realm of the patient's endurance and, granting such, whether or not one may reasonably hope to improve the patient's chance for recovery or arrest of the pulmonary disease by eliminating the non-tuberculous lesion.

INDICATIONS AND CONTRAINDICATIONS FOR OPERATION IN CASES OF DUODENAL ULCER*

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Before any opinion is expressed on what plan to follow in the treatment of duodenal ulcer it may be well to consider some of the fundamental facts regarding the condition. In the first place it is well known that ulcerations in the duodenum are benign, in this respect differing from similar lesions in the stomach. Necropsy specimens and clinical records have been examined repeatedly in the clinic for evidence of primary cancer of the duodenum, but each review has brought the same conclusion, that cancer does not start in the first part of the duodenum. In the case of ulcer of the stomach it is impossible to determine without microscopic study whether the ulcer is benign or malignant; furthermore, there is considerable evidence to show that a gastric ulcer may start as benign and change to malignant. Therefore, it has always seemed to me that gastric ulcers are essentially surgical lesions from the beginning but, since duodenal ulcers are benign, there is no objection to carrying out any sort of conservative treatment that offers a prospect of relieving the symptoms and curing the disease.

Some years ago I called attention to the occurrence of two distinct pathologic lesions in the duodenum either of which may be found where there is a characteristic history of chronic peptic ulcer. The first is the true ulcer which is recognized by congestion and stippling of the serosal surface with more or less formation of scare tissue and adhesions and deformity of the duodenum. The wall of the bowel is always indurated in this type and a tumor may be formed as a result of the defensive reaction of the surrounding tissues, if the ulcer has slowly perforated the bowel. When the intestine is opened a crater-ulcer is seen. A second type of lesion is one which we have called duodenitis or submucous ulcer in which there is congestion and stippling of the serosa but little or no induration. Palpation of the duodenum is negative and when the bowel is opened no lesion of the mucosa can be found or at most only one or more superficial small mucosal abrasions. These might be considered healed ulcers were it not that the congestion, edema and stippling and the presence of symptoms constitute evidence of some pathologic process going on in the intestinal wall. Microscopic examination reveals little or no abrasion of the

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mucosa, but the submucosa and at times the muscle layers are infiltrated with lymphocytes. Often there is a tendency to circular constriction of the bowel in these cases, but it is difficult to determine whether this is due to spasm or true narrowing. Clinically there is little if any difference between the two types. The roentgenogram shows spasmodic deformity in both lesions. That duodenitis is not a stage from which true ulceration invariably develops is shown by the fact that the average duration of symptoms in the two lesions is about the same. The terminology has no hearing on the clinical diagnosis or treatment. MacCarty has reviewed 97 excised, localized, inflammatory duodenal areas and has found that the pathologic picture of duodenitis is cellular destruction with congestion, edema, migration of polymorphonuclear leukocytes, lymphocytes and endothelial leukocytes. The lesion may be localiezd or diffuse.

The recently advocated treatment of duodenal ulcers by extensive resection of the first portion of the duodenum and pyloric part of the stomach has led to interesting pathologic findings. Konjetzny finds that in all cases of gastric and duodenal ulcer there is more or less extensive gastritis and duodenitis. He found it present in 22 cases of duodenal ulcer. All stages of superfiicial ulceration are seen varying from tiny abrasions to ulcers of appreciable size. Strauss in his resected specimens also found the entire duodenum to the point of resection infiltrated with lymphocytes, plasma cells and eosinophiles.

That duodenitis is a primary process is borne out by the long history. A relationship exists between duodenitis and chronic ulcer; however, according to Konjetzny, chronic ulcer forms as the resula of unknown mechanical factors on the basis of chronic duodenitis. The importance of the acid factor is still undetermined. The etiologic factors of duodenitis are not known. The pathologic findings in duodenitis call attention to the work of Rosenow as the condition found closely resembles lesions produced by him in animals by injecting specific strains of streptococci. It is an interesting observation that this duodenitis type of lesion is the one that always results from the experimental production of ulcers following the bacterial invasion of the blood stream. The only difference is that the experimentally produced lesions heal promptly while those that we have observed in man are chronic. It is very unusual to be able to produce a chronic ulcer by injecting the blood stream with ulcer strains of streptococci. Contrary to this, however, are the ulcers that are produced experimentally by duodenal drainage. A factor in the production of these ulcers would seem to be a change in the physiologic processes. The ulcers are invariably chronic, have a definite crater and are in every way similar to the true ulcers seen at operation. Whether the inflammatory lesion is the result of infection and the true ulcerous lesion the result of disturbed function has not been determined.

In this paper dealing with the indications for and the contraindications to the surgical treatment of ulcer of the duodenum it is worth while to consider seriously these different lesions. It would seem as though eradication of foci of infection and general measures with a dietary regimen would offer a good prospect of healing a localized area of inflammation in the duodenum. The fact that such a lesion does frequently exist without true ulceration lends support to medical management in certain of these cases.

Of the definite indications for surgical treatment in these cases, we first think of perforation. We are all agreed that in the presence of acute perforation operation must be performed immediately. In certain other cases there seems to be a chronic perforation or a slow leak or penetration of the duodenal wall. These cases can usually be recognized by the severity of the pain. If the pain is intense and requires an opiate at times to relieve it, I believe that the safest plan is to operate. Regarding the question of hemorrhage in these cases there is some difference of opinion. Hemorrhage usually occurs suddenly and acutely. It is not unusual to have it come on when there have been no other signs of ulcer. Some of the European surgeons, Finister especially, are inclined to feel that resection of the stomach should be performed as an emergency operation in the cases of acute hemorrhage, and have quoted statistics to show that their results are better than have been obtained by conservative measures. My experience in cases of hemorrhage leads me to follow the conservative plan of keeping the patient quiet with an occasional dose of morphin, and ice caps on the abdomen. In this way he will usually come through the emergency safely. I believe it is a mistake to try to hurry the case by transfusions and intravenous medication; too often this results in a recurrence of the bleeding. I have felt that it was not necessary to operate because of one hemorrhage from such ulcers; I have seen a number of cases in which there was no recurrence of the trouble. If the hemorrhage does recur, surgical treatment is definitely indicated at a time when it can be safely carried out. If operation is undertaken in a case of hemorrhage, it is best to remove the ulcer because in a certain percentage bleeding recurs even after gastro-enterostomy.

The indication for operating for chronic dys-

pepsia resulting from an ulcer of the duodenum depends on several factors. If the symptoms have been going on for a long time and especially if several permiods of good dietary regimen and medical management have been instituted and trouble still continues, I see no occasion for postponing operative treatment. If the symptoms have existed for a short time only, and no treatment has been instituted, it may not be wise to operate. There is plenty of evidence to show that ulcers do heal spontaneously and also that dietary management, started before the case becomes chronic, may result in complete relief from symptoms and probably in healing the ulcer. In any case of duodenal ulcer, diet should be tried conscientiously before operation is resorted to. Most of them provoke no symptoms during treatment. Only occasionally will one of them perforate during the time of rigid treatment. It is a great mistake to continue dietary treatment if nothing is being accomplished by it, and if the symptoms return as soon as there is the least indiscretion. About 65 per cent of the patients with duodenal ulcer who enter our clinic undergo operation. This implies that in many cases, duodenal ulcer even though chronic, runs a mild uncomplicated course. Medical treatment may be carried out and operation eventually resorted to if the result of the treatment or the co-operation of the patient is unsatisfactory.

The age of the patient should be taken into consideration; if a young person has mild symptoms of short duration, dietary regimen should be carried out for a considerable time. The severity of the symptoms in any case will help to determine what plan to follow because, if there is a constant tendency to perforation or bleeding or severe gastric upsets which are not relieved quickly by diet, operation is indicated. Nervous tendencies and the race of the patient should be taken into consideration also. Persons with a highly sensitive nervous system do not bear any gastric operations well. A higher percentage of Jewish people seem to have ulcers. They are likely to be of a severe type and any type of gastro-intestinal anastomosis may be followed by jejunal ulcers. If these high-strung, nervous patients can be kept at all comfortable by any form of diet and medical management, I believe that this is indicated rather than surgical measures.

Duodenal ulcer is a common ailment. Between 1,200 and 1,500 patients with this disease are seen in our clinic every year. Roentgenographic statistics show that duodenal ulcer is nine times more common than ulcer of the stomach. The average duration of symptoms at the time these patients are seen has been about nine and one-half years. In most instances beginnings are mild and there are long intervals of relief. In about 35 per cent of all cases the usual complications are manifested, such as recurrent hemorrhage, obstruction of varying degree and perforation. In only about 37 per cent of our patients was the disease diagnosed before admission. The results of surgical procedures in the very obese patients with duodenal ulcer have not been entirely satisfactory and we consider that obesity as well as active pulmonary tuberculosis, diabetes, or serious renal or cardiovascular disease contraindicates operation. In cases of active tuberculosis in which dieting is not successful, we have operated with very satisfactory results. Women as a rule co-operate better than men and the results of treatment are better. The exact medical treatment sometimes helps in the differential diagnosis, serving as a so-called therapeutic test, Operation is indicated in the cases in which there is evidence of an associated extragastric lesion. In many of the cases of duodenal ulcer cholecystitis with stones and appendicitis are associated and demand prompt surgical treatment. In uncomplicated cases, especially those of long standing, patients may personally prefer operation. Some of them reach the point where the diet is unbearable; others, for economic reasons or inability to obtain or follow out medical management, will require surgical treatment.

Just what we accomplish by the different forms of treatment in cases of duodenal ulcer will not be definitely known until we learn more of the etiology. The opportunity in the last few years to study the stomach and duodenum in the cases in which resection and excision have been carried out may help in this respect. Much attention is being given to the inflammations in the stomach and duodenum, both in association with ulcer and independently of any sign of ulceration. Undoubtedly these lesions may exist for a short time and then heal and leave a scar as the only evidence of disease. Many scars of healed duodenal ulcers are found by those who make a routine of looking for them at necropsy. Gastro-enterostomy results in healing, although not in every case. I do not believe that the great wave of enthusiasm for resecting the stomach in cases of duodenal ulcer on the basis of the physiology of acid secretion will last very long. Gastro-enterostomy is not an entirely satisfactory procedure because in a certain percentage of cases ulcers form. The best type of operation for duodenal ulcer is one that removes the ulcer and puts the pyloric sphincter at rest.

Unfortunately we have no accurate statistics showing the result of the medical treatment of duodenal ulcer. As nearly as we can estimate, surgery offers more than a 90 per cent chance of complete and permanent relief from symp-

toms. Operative treatment is definitely indicated in cases of duodenal ulcer after a fair trial of medical treatment has failed, and in all cases in which symptoms are severe whether or not the conservative treatment has been tried. Operation is not indicated in the more recent cases progressing favorably on medical management nor in cases in which associated disease increases the hazard of operation if the patient is being kept reasonably comfortable on dietary treatment.

DISCUSSION OF DR. JUDD'S PAPER
ELMER L. EGGLESTON, M. D.

In attempting a discussion of any phase of the peptic ulcer problem, I am mindful of the words of a man who, because of his early recognition of duodenal ulcer, was able to arrive at an accurate diagnosis based on clinical symptoms alone. To have such definite understanding of the condition in the absence of the valuable aids to diagnosis which are at our service today would certainly entitle him to a position not attained by later observers. I refer to Sir Berkley Moynihan who has expressed himself as follows:

"The literature on this subject is already formidable in volume, but unhappily its value is by no means proportionate to its bulk. The foundations of most of it are unsound.... We have come into a deceptive inheritance; a large part of which we thought was gold has proved to be tinsel, the authority of a great name alone bestowing any interest upon it. Here at least we may agree with Damascenus that 'without exquisite knowledge, to work out of books is most dangerous.'"

A review of the recent literature only dealing with this subject would bear witness to the truth of this statement, but it may also be indicative that the problem of peptic ulcer has not been satisfactorily solved, either with reference to etiology or therapy. Had either the surgeon or internist perfected a therapeutic method giving satisfactory results in practically all cases, at least one phase of the discussion would have been eliminated.

.... Dr. Eggleston read his discussion on Dr. Judd's paper (Paper No. 7), with the following interpolations:

Interpolation No. 1: I am very sure that the matter of duodenitis is certainly a precursor of many cases of duodenal ulcer, and it is very possible that dietetic indiscretions may in this way be explained as causative factors in the production of chronic ulcer.

That the disease is one for the internist early in its development is unquestioned. The matter of early diagnosis is entirely his responsibility and it is in his province to direct the early treatment when definite surgical indications are lacking. Concerning this I quote further from Sir Berkley Moynihan as follows:

"I think it is a reproach to medicine that the surgeon should be compelled to operate so frequently for gastric and duodenal diseases. Such ulcers ought surely to be cured, far more often than they are, by medical treatment. Physicians who acquaint themselves with the pathology of a living gastric or duodenal ulcer realize how protracted and how scrupulous the medical treatment of so grave a lesion must necessarily be."

It is most unfortunate that either the physician or surgeon is compelled to treat *chronic* cases of peptic ulcer. An early diagnosis of the acute ulcer with appropriate and thorough treatment would probably provide a cure in a very large percentage of cases. A review of the histories of more than a thousand cases coming under our observation subsequent to the use of accurate diagnostic methods, reveals the fact that the average duration of the trouble was more than seven years. A great many of the cases had never been treated symptomatically as cases of vague indesignation or hyperchlorhydria. Because the ulcer patient, early in the development of the trouble, is not incapacitated and since his symptoms are relieved so easily, the trouble is likely to be considered of small consequence by his physician. A rigid diet is not prescribed nor is complete rest insisted upon with the result that the relief obtained by alkalis is temporary only and with repeated attacks there develops pyloric stenosis, a dilated or hour glass stomach, with the possibility of hemorrhage and perforation—conditions demanding, in most cases, surgical intervention.

Interpolation No. 2: I hope you won't think for a moment that the internist of today is antagonistic to the surgeon in the treatment of duodenal ulcer; certainly such is not the case. There are extremists both among the surgeons and among the internists. There are those who say once the ulcer has been diagnosed it is a surgical case. One very prominent surgeon was so free to express himself as to say that the internist having made a diagnosis of ulcer is no longer an internist, he is an infernist. Possibly so, but we hardly believe that the condition is so serious as all that.

It is an unfortunate reflection on our profession that a condition that can be so accurately determined with the facilities at hand, should be allowed to drift for years undiagnosed.

Interpolation No. 3: Although very frequently the patient who comes to my office gives a very classical history of ulcer so it seems a diagnosis might be made even without further examination, he is asked the question, "Well, have you not consulted your physician relative to this condition?"

"Oh, yes, but he said, 'Well, I think you have hyperchlorhydria,' and has given me some powder," probably an alkaline mixture, and that is the extent of the diagnosis and the extent of the treatment.

This is not entirely the physician's fault, since the disease not being of a disabling character, in many cases the patient fails to consult a physician until he has suffered from several attacks of the typical period distress.

In determining just what type of cases should be treated medically and what conditions demand surgery there is still a very decided lack of uniformity of opinion between opinions expressed by both. To insist that surgery is ever indicated in peptic ulcer is just as extreme as that surgery is indicated in all cases. That surgery is necessary in some cases is beyond question. That it is so frequently necessary is a reflection on the previous management of the case.

While it is generally recognized that the acute ulcer should be treated medically most surgeons insist that the chronic ulcer, if cured, this must be through surgical means. Our results with a rather large series of cases would hardly warrant this conclusion. With a very careful follow-up extending over a period of more than 10 years, of the cases we are able to trace, more than 60 per cent report complete relief of symptoms from two to ten years after treatment. In 156 cases treated medically and in which a period of at least three years had elapsed since the disappearance of their symptoms, 113, or 72 per cent reported no return of symptoms and 43, or 28 per cent reported recurrences. Of a recent series of 98 patients all suffering from chronic ulcer which we have been very carefully following because of the type of medical treatment used, 77, or 79 per cent have reported no return of their symptoms over a period of from two to eight years. While I appreciate that a

period of two years is not sufficient time to allow that there may not be recurrences, never-the-less, the results so far have been very gratifying.

Balfour reports in cases of chronic ulcer, objections to medical treatment do not exist since the symptoms are not usually so severe, the disability not so great, and the danger of fatal complications not so marked. Medical treatment of chronic duodenal ulcer is therefore not uncommon, but the data concerning late results is not so satisfactory as might be wished. Undoubtedly certain patients are relieved by medical treatment of ucomplicated chronic duodcnal ulcer is justifiable before surgical interference is advised. The length of time the medical treatment of duodenal ulcer should be persisted in depends on the patient's symptomatic response, his economic status, general health, and his willingness to follow treatment. In most cases of chronic duodenal ulcer, however, surgical treatment is sooner or later indicated. (Can. Med. Journal, May 26.)

The surgeon is apt to be very skeptical of medical cures, but in all fairness it would seem that the same skepticism might also be applicable to surgical cures, especially when gastro-enterostomy has been the operation of choice.

Interpolation No. 4: I am very glad indeed that Dr. Judd has outlined a form of treatment for these duodenal ulcers which is more extensive than a simple gastro-enterostomy. I think one of the great objections on the part of the internist or the physician to surgical treatment has been simple gastro-enterostomy for unstenosed duodenal ulcer. In my opinion, a simple gastro-enterostomy for this type of case is worth but very little more than a thorough medical treatment.

In the light of the Mt. Siani statistics as reported by Lewisohn, this would seem reasonable. He reports that as a result of careful observation of surgically treated cases over a period of from four to nine years, that only 47 per cent of these surgically treated cases were reported as completely cured, 19 per cent had fair results, possibly meaning a slight persistence of ulcer symptoms, while 34 per cent suffered from marginal or gastro-jejunal ulcer. He further reports that a simple gastro-enterostomy, according to their findings, did not reduce the gastric acidity even after many years and their opinion is that for duodenal or gastric ulcer, the operation of choice should be a partial or sub-total gastrectomy as the application of more conservative methods is followed by too many recurrences.

In cases of chronic ulcer, the presence of pyloric stenosis, hour glass stomach, or indications of impending peforation are generally, and without doubt, considered surgical cases. It is further urged by the surgeon that in cases reporting previous hemorrhage the danger of a recurrence would warrant sugical interference. Probably the most careful review of this phase of the problem has been by Hurst who reports the results of a study of such cases as occurred in Guy's Hospital between 1911 and 1920. (The Lancet, March 31, 1923).

Interpolation No. 5: I appreciate that these statistics have been very severely criticized and there is no question but that the statistics from different clinics will vary. Nevertheless, I am very sure that the statistics of the Mt. Sinai Hospital have been very carefully collected. It simply goes to show that so far neither medically treated cases nor surgically treated cases respond as satisfactorily as might be desired.

In conjunction with Dr. J. J. Conybeare, a series of 600 cases admitted to Guy's Hospital on account of hemorrhage from an acute or chronic ulcer were critically studied. During this period 23 cases succumbed to hemorrhage. The deaths from this cause amounted to no more than 0.37 per cent of 6,302 autopsies. Only 13 out of the 23 died without having undergone some previous operation for the relief of the trouble.

Interpolation No. 6: Remember that an acute ulcer is very much more likely to bleed than a chronic ulcer and the hemorrhage is likely to be more severe and more difficult to correct. I agree heartily with Dr. Judd in the idea that immediate operation for the relief of hemorrhage is a very dangerous procedure. The mortality from hemorrhage is very low.

In 7 of the 13 cases of death without previous operation, the ulcer was of the acute type—five times in the stomach, once in the duodenum and once in both duodenum and stomach. In none of these was there symptoms that would have justified surgical intervention at an earlier date. In none would surgery have prevented death. In only three of the six cases of chronic ulcer dying from hemorrhage apart from operation, 0.5 per cent of admissions from haematemesis and malaena was there a history that could have distinguished them from the acute cases. In none but these could operation have been undertaken with some hope of securing life. The immediate results of operation performed for tre direct treatment of hemorrhage are so unfortunate that the danger of succumbing to hemorrhage is less than the danger of operation during hemorrhage.

He feels that the only exception to this is the occurrence of severe and persistent hemorrhage in an elderly individual with a long history pointing to the presence of a chronic ulcer whose arteries are so sclerosed that they are unlikely to contract sufficiently for satisfactory plugging by thrombosis.

"Twelve per cent of duodenal and eight per cent of gastric ulcers which had been the source of bleeding before operation, bled after operation." (D. C. Balfour, Mayo Collected papers on the clinic, 1919. Page 87).

Hahlbaum's statistics from Payr's University Clinic in Leipzig report that no less than 20 per cent of cases in which gastro-enterostomy had been performed, hemorrhage of a severe and occasionally fatal character occurred immediately, or months or even years later. As most of the cases in which hemorrhage occurred were in patients who had previously bled, the operation is now no longer performed for the purpose of preventing a recurrence of hemorrhage.

A report from Faber's Clinic in Copenhagen shows that fatal hemorrhage is not only comparatively rare, but it also shows a remarkable tendency to attack persons who have previously shown slight or no symptoms beforehand. If there had been slight symptoms beforehand, they had lasted only a short period. He has collected 55 cases of fatal hemorrhage, observed between 1907 and 1917, and the post-morten records showed that in 16 cases the fatal hemorrhage came from a recent ulcer or crosion and in 11 other cases the source of the hemorrhage was also a recent ulcer, although other, old ulcers, were also found. In seven cases the post porten records were incomplete, and only in 21 cases did the fatal hemorrhage come from a chronic ulcer. Most of the 27 patients who died of hemorrhage from a recent ulcer were elderly; the age of 20 of the patients was between 40 and 76.

"In view of the above statistics relative to the very low mortality in ulcer cases from hemorrhage and much less from perforation, scarcely greater than the surgical mortality in ulcer, it would hardly seem that in the absence of pyloric stenosis and hour glass stomach, that we must consider ulcer cases even where hemorrhage has occurred as to be in imperative need of surgery. It would seem that the best interests of the ulcer patient would be served by a much earlier diagnosis, by a thorough and persistent course of med-

ical treatment in which the patient must co-operate sincerely and for a period of four months rather than days, and finally if his stomach is of a chronic nature the physician and surgeon should, without prejudice, together decide as to whether the best interests of the patient would be furthered by surgery and if surgery be the choice, the type of operation be suited to the peculiar needs of the patient in order that the possibility of a return of the trouble after operation be reduced to a minimum."

In the future, for the best interest of the ulcer patient, it is to be hoped that the physician and surgeon may be able to collaborate without prejudice or undue criticism, each recognizing that there is still unsolved problems in both the etiology and treatment which demand their best united efforts.

Interpolation No. 7: I am very well satisfied that the internist or the physician who attempts to treat these cases without the assistance of the surgeon, without the consultation of the surgeon is making a mistake; but to turn every ulcer patient over to the surgeon is, in my opinion, unnecessary. It is very true that there are certain cases who will not co-operate and who should be treated surgically. But in the event that the case is sent to the surgeon, it would seem to me that there should be a very careful study to determine the particular type of operation, as is mentioned by Hurst, that would be applicable to that particular type of case. It is to be hoped that in the very near future the etiology of this trouble which seems to be increasing in frequency will be better understood, for until this is understood, I question whether the treatment, either medically or surgically, is going to be entirely satisfactory.

Thank you very much. (Applause).

Secretary Warnshuis: Now we will have Dr. Angus McLean's discussion. (Applause).

Dr. Angus McLean: My part is on the surgical treament of ulcer. First we will divide this into the gastric ulcers and into duodenal ulcers. The gastric ulcer, of course, is that which takes place within the stomach itself. Roughly, I think the surgical treatment has been divided into four different methods: First, gastro-enterostomy as a simple drainage, and in some cases it acts well; second, excision of the ulcer by either the knife or cautery, or both; third, excision of the ulcer and if there is a great amount removed so as to cause puckering, pylorostenosis, a gastro-enterostomy; fourth, a gastrectomy or a partial gastrectomy, removing the pyloric portion and the lesser curvature, or, in other words that portion in which the ulcers are more apt to appear.

We started with the gastro-enterostomy. We have the excision and enterostomy. The later and more radical people recommend gastrectomy. Why? Because not one of them so far is perfectly satisfied. Why? Because in some cases there reappears an ulcer of the stomach. In a number of cases you have the so-called peptic or jejunal ulcer. That appears around the anastomosis or it may appear in the jejunum or in the distal portion or pyloric portion. Why? Because as was said today, you can produce an ulcer of the duodenum by distributing its function. So that isn't satisfactory. Now they have gone to the gastrectomy. In your gastrectomy you also have an enterostomy; that is subject to the same difficulties as the other.

As to the cause of ulcers, I think that almost all agree it is some type of infection, probably first in the abdomen, in the appendix, a diseased tube, ovaries or something of the like. They don't all come from that; they may come from other causes. They may come from infected teeth; they may come from tonsils. The last case I had of a severe hemorrhage with a duodenal ulcer was a man who had the symptom, and he had almost all of his teeth pulled. I think three weeks after he had his teeth pulled he had a severe hemorrhage. That was followed a month later by another very severe hemorrhage. So pulling the teeth doesn't stop the hemorrhage. He had an active ulcer. Once you have an active ulcer, removing the cause doesn't stop it, it goes on. You have your infection there and you have your activity and you have the ulceration of that. So much for the treatment of ulcers of the stomach.

Now we come to almost the same thing in the treatment of ulcers of the duodenum. As it has been said, almost all ulcers are in the first portion; the great majority are on the anterior wall. Up until today what has been the treatment? It has been a long medical treatment, but there is no medical treatment that is satisfactory . It cures a percentage, but they have their symptoms and then they have recommended to them or they seek surgical treatment.

The treatment surgically today for a duodenal ulcer is a gastro-enterostomy, a posterior gastro-enterostomy. Here you have your enterostomy again, here you are subject to the peptic ulcer again and you sometimes have then anterior and posterior. I think the jejunal ulcer or peptic ulcer comes about twice or three times more often in the anterior gastro-enterostomy than in the posterior. So the posterior is the one to recommend.

Now, what are you going to do with the ulcer? The ulcer is there. If you can, the thing to do is excise it and close it up. Simply excising an ulcer and closing it up doesn't guarantee results. You had better do a gastro-enterostomy. In case of hemorrhage they will say, "Go in and tie off the blood vessels." That isn't so easy to do. We don't all find them so easily. It is a good thing to do.

Then there comes the case of the severe hemorrhage, what should you do? Go in and remove it or tie it off or tie off a lot and remove the area. It is a very serious matter because the patient is in a very serious condition. I would rather take my chances in building it up and waiting, because few of these cases bleed to death. They will bleed down and after a while they will recover. Don't give them transfusion and those things too soon, wait for 24 hours and then you can give them that and bring them back and wait a time and bring them up.

Now, they recommend the removal of a portion of the duodenum. It is same thing as removing a portion in gastrectomy. In other words, what has brought gastro-enterostomy rather into question and disrepute in some cases is because it has been done where there has ben no ulcer, just as was said today. Where you have the duodenitis, gastro-enterostomy isn't going to do any good. It leaves you just where you were. You haven't any spasm of that pylorus and it won't do any good, and that is still a medical case. To remove that portion of the duodenum that has the duodenitis, I am afraid will get you into severe trouble, because once you cut off the duodenum and tie any portion you will have trouble, you will have ulcers, something will happen in digestion, and that is a serious matter.

So far the treatment of duodenal ulcer is gastro-enterostomy. Remove the ulcer if you can, pick it up where you think it is, tie off the blood vessels and leave that where it is.

Now, as I have said, there is no standard positive surgical treatment that is satisfactory to everybody for ulcer of the stomach. Up-to-date there is no standard, perfectly satisfactory surgical treatment for duodenal ulcer. You do get beautiful results in a great many cases, but in summing it up it isn't a standardized treatment. Today there was one thing

here that everybody agreed upon, that was that a perforated duodenal ulcer was positively surgical. There wasn't a doubt about it. Now comes the great trouble of waiting for that ulcer to perforate. It is a serious matter. (Laughter). You hadn't better wait.

When you have a perforation of the duodenum and a perforation of a gastric ulcer, you have different symptoms afterwards. In perforation of duodenal ulcer, of course, you have the pain. That pain will pass down and in two or three hours you have the pain right over the appendix.

I have in mind now a picture of where this happened in that fellow, Valentino. Valentino was operated on for appendicitis because his pain and tenderness was right over the appendix. Then they discovered there was something there and looked up and found he had a perforation of the duodenum. So that is something to remember.

One more point on perforation. If you get the perforations of the duodenum in three or four or five or six hours, they should get well if you don't lose too much time fixing up the appendix.

Where one is perforated for 15 or 20 hours, the chances are very doubtful, you have an irritative peritonitis that is serious. If you operate after that time and get the ulcer and close it, be sure to put a drainage in the flank or better in the pelvis. There are contents you had better drain. There are those surgeons who believe that nothing should be drained, that the omentum and peritoneum wll take care of everything, but I rather believe that they had better help nature a little or go hand in hand with God and let out those contents through a tube. The patient will be better off.

As I say, from what I see in the medical treatment of gastric or duodenal ulcer, it is not satisfactory. There is plenty of room for the medical man to advance. I can say that also for the surgeon, there is room for the surgeon to advance. (Applause).

THE PHYSICIAN AND THE DEAFENED PATIENT*

HAROLD HAYS, M. D., F. A. C. S.*

NEW YORK CITY

The glamor of surgery and the satisfaction in caring for acute diseases which result either in death or cure within a short time, naturally makes the care of patients suffering from a surgical condition or an acute disease far more fascinating than attempting to relieve a condition which is baffling and which shows a tendency toward chronicity. Yet acute sufferers do not deserve our sympathy half as much. They either get well within a short time and then can lead a normal existence or else they pass into the great beyond. The chronic sufferer has a general physical and mental reaction toward his infirmity as long as he lives and this condition is particularly so in deafened individuals who have so little to look forward to. In spite of the best that we can do for them with our present day knowledge, we can promise them but a slight amount of relief, seldom a cure and most often must tell them that we can but arrest the condition.

Under these circumstances, is it fair for the average medical man and particularly the otologist to assume the attitude that he does? He is not only dealing with a physical make-up which will respond to physical treatment; he is also dealing with a complex mental mechanism which needs adjustment if the patient is to be of any worth to himself and to the society in which he moves. The result of our negligence has been that most of these patients have turned to the fakers within and without the medical ranks and have spent thousands of dollars uselessly. I can stress this point no better than to refer you to the files of the American Medical Association (articles by Dr. Cramp), in which you will find detailed the number of quacks who have mulcted the deafened public and a description of their nefarious schemes. The ultimate result is evident to everyone but the patient—no relief, a hopeless despondency, a condition getting worse and sometimes irreparable harm done as will be evidenced by the following example:

A young school teacher came to our offices from a small town in Maine. Her hearing had been defective for a number of years. She obtained a position in one of our New York schools and came to us regularly for treatment. We were able to keep her hearing defect at a stand still and her hearing was good enough for her to keep to her work. A few summers ago, having saved up a few hundred dollars, she decided to go abroad. Then one of her intimate friends told her of a marvelous doctor nearby who had cured thousands of their hearing defects. So instead of going abroad, she traveled a few miles to this miracle worker who stuck his fingers into her throat, manipulated her middle ears, made a few mystic passes, took all of her money and assured her that she was much improved. Her condition was so bad that she shamefacedly came to our offices and told us the story. A hearing test showed us that her hearing defect was far worse, that there was an intense inflammation of both Eustachian tubes and that it was almost impossible for us to do anything to make the condition better. In the past year she has dropped out of sight. Whether she is alive or dead today, we do not know. This is one of but many cases which anyone who has come in intimate contact with patients of this kind, could cite.

In a survey of the Hard of Hearing made by a special Committee of the American Federation of Organizations for the Hard of Hearing, headed by Mrs. James F. Morris of Boston, proof was given of the need of proper care of

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the more than three million partially deaf children of the country. Three million or more partially deaf children! Eighty percent of these children can have their hearing defect cured at this time. One hundred per cent of them will be deafened adults if nothing is done to remedy the condition in early life! I wish to bring these facts before you at this time to impress upon you the duty you have to perform —to properly weed out the deafened children in your community and see that they are properly treated and to see that these children be given a fair deal in school and not be permanently retarded in their studies.

The physician is called upon to see three classes of deafened patients. I am eliminating the so-called deaf mute child, who is more or less an educational and state problem. He is called upon to advise on the condition of deafened children; he is called upon to treat and to advise adult patients, a part of whom fall into the class who can be improved medically and a part of whom will have to be treated along psychological lines. I know it is far easier to state that little or nothing can be done; but not only is this false and a lazy way of getting out of a difficult situation, but it is criminal to merely remark, "It is foolish to waste your time trying to do anything; you are going to get worse no matter what you do." Such advice has lead to a watery grave in the river in more than one case. One can at least examine the ears to see if any cerumen or discharge is present or not or he may note some abnormality in the nose and throat which is aggravating a catarrhal condition. To prove the criminality of neglect in such cases, let me cite the case which came to the attention of one of our confreres, Dr. Wendell C. Phillips, now President of the American Medical Association. A child was brought into his office who had been suffering from a severe degree of deafness for over two years. Her tonsils and adenoids had been operated upon on two occasions but the deafness still persisted. Examination showed both ear canals filled with cerumen. When this was removed, the hearing was greatly improved and eventually returned to almost normal. Neither of the two medical men who had operated upon her throat took the trouble to look into her ears although her deafness was her chief complaint.

The children which one encounters belong in two classes—those who are suffering from a suppurative condition of the ears and those who are deafened as the result of a so-called catarrhal process. Neither one of these conditions will improve if nothing is done and neither will improve very much if the little patient is treated in the ordinary ear clinic. I do not wish to give my reasons here except to say that results can only be obtained when one uses the utmost patience to obtain the confidence of the child and when he is willing to use every necessary care. I have come to the conclusion that each case has to be individualized. The best evidence that a great deal can be done will be found in the following facts gleaned from our personal experience in running a Clinic for the Prevention of Deafness in our own offices for over three years. Remember that almost all of these children had received clinic treatment and the results had been practically nil. In this period, we treated over four hundred individual children who were sent to us with complete personal and family histories by the social service workers of the New York league for the Hard of Hearing. Almost half were so-called catarrhal cases and the other half were suppurative conditions of the ears. In every case a hearing test was made with the 2-A audiometer. In some cases it was necessary to have the child come three or four times and watch other children have their hearing tested before we could find out how much hearing they had. Trying to test the hearing of a nervous or unruly child is utterly impossible and without the test one cannot tell whether there is any improvement or not. The ears were then carefully examined. Attendant physical conditions, both local and general were noted and, when necessary these were attended to. The kind of treatment which was given, depended upon the individual. A general outline of these treatments will be given here.

First of all let me say that it is absolutely impossible to obtain any result unless the physical resistance of the patient is brought up to the normal. This fact has often been stressed by Dr. Franklin W. Bock of Rochester, who has been one of the pioneers in this work on children. He states, "Where parents are wealthy and every medical attention is given to the child, the percentage having defective hearing is extremely low. Where little or no medical attention is given and no follow-up work done, the percentage is high." We agree with this statement. Cod liver oil or one of the other fat vitamines with plenty of fresh air, the early removal of infected tonsils and adenoids will do far more than ignorant or careless meddling with the ears.

The remarks of Miss Caroline E. Vose, in the Survey will fit in well here. She states: "There is much general ignorance on the insidiousness of deafness which often makes it possible for it to become fairly advanced before it is detected. The most important first step in the program against deafness is to secure recognition for the fact that repeated colds, running ears, a high arched palate, any

nasal obstruction, infected tonsils, adenoids, measles, influenza, scarlet fever and so on, may all cause deafness and, therefore, the ears should be frequently and regularly examined and should be treated immediately if even the most minor trouble is discovered."

I shall briefly outline the method of treatment employed in our children's clinic.

CATARRHAL CASES—

In the majority of these patients there was some pathology of the nose and throat which needed attention. It was surprising to find out how many of them had tonsils or adenoids. In cases where these had been removed there was often some infection in the nose, particularly a sinus condition. There is no use whatever to attempt to give permanent relief while such pathology is present. Of course one comes up against the inane prejudice of the parent who is only too willing to let well enough alone and, often will not have the underlying trouble attended to. One realizes that the Eustachian tubes of children are short and often well open so that the condition in the ear will respond to politzérization. In fact we found that the majority of these cases could be cured in this way. But under no circumstances should these children be taught to inflate their own ears (the old Valsalva method) because this will surely, in time, create a relaxation of the drum.

If the ear does not respond to politzeration one must have recourse to the use of various sounds and applicators which will medicate the Eustachian tube and the middle ear. It is always difficult to employ this method of treatment in children until one gains their confidence, but it is surprising to see what one can accomplish after that. Results always speak for themselves and we were happy to note an improvement or a cure in the majority of our cases.

Suppurative cases. The types of cases thus treated ran from the simple, non-odorous, serous discharge to the profuse, thick, odorous suppuration which indicated diseased bone. Each case had to be treated individually. The majority of them responded to thorough cleansing, to the application of drops of mercurochrome or acri-violet, to zinc ionization and autogenous vaccines locally applied. In a few instances it was necessary to eliminate the underlying factor or to perform a radical, mastoid operation. Here, again, our interest was mainly in the proper handling of the child from the physical and mental point of view. This resulted in our obtaining satisfactory results in the majority of cases. Unfortunately we reckoned that the number of cases which we treated was but a drop in the bucket. Our investigation showed that there were at least fifty thousand children of school age suffering from defects of hearing. What could be done to reach them all? Surely our clinic wasn't doing it. So we have presented the matter to the health authorities and to the board of education and we are hoping for concerted action within the near future. From the view-point of economics, let me give you the following figures from Dr. Bock of Rochester, N. Y. He had checked up the grade standing of 349 children in or near the danger zone and found that 128 had met their promotional standings each year; 83 had repeated once; 60 had repeated twice; 45 had repeated three times; 13 had repeated four times; 9 had repeated five times; 1 had repeated six times.

Considering that a "repeat" in Rochester costs $60.00 the cost to the city was $26,460.00 and wasted many years in education. Such significant facts should make one realize how important this subject is.

The problem of the adult hard of hearing must be dealt with in a different way. In the first place, one must realize that almost all of these patients have been suffering from an insidious process since childhood and that in the majority of instances, it is absolutely impossible to cure the condition although it may be considerably improved. Adhesive processes have taken place, definite connective tissues changes beyond repair. The problem is not to bring the diseased parts back to the normal but to readjust the parts so as to obtain hearing. One cannot make a short leg longer but he can get the spine to accommodate so that the patient is able to walk with little difficulty. Once one gets the patient to look at his infirmity from this point of view, he will be able to do a great deal toward bringing the hearing up to the maximum and keeping it there.

Following routine procedures such as Politzerization and catheterization will not give the desired result. One must analize the patient's history and determine what etiological factor is keeping up the trouble and moreover, he must get the patient into a more optisistic frame of mind. I have seen patients improve after an irritating gall-bladder had been removed; I have seen other patients improve when nothing was done for them by the physician but where they had altered their lives so that they were in a better mental and physical state. One of my patients, a school teacher, had a hearing defect of 40 per cent. She went to Yellowstone Park one summer and came back with an improvement of 10 per cent. This improvement has been maintained over a number of years.

Of prime importance, after a thorough examination of the nose, throat and ears, is the testing of the hearing with the audiometer.

This may indicate a defect in the lower tonal range only or in the higher range or there may be a defect in the entire musical scale. The chart is easily read and an interpretation can often be made from it. If the first state is present, local attention may be all that is necessary. If either of the other two states exist, one must seek for some factor in the system which is acting as a irritant to the internal ear mechanism and to the middle ear. A focus of infection may be found in the teeth, in the tonsils or sinuses of the nose, in the gastro-intestinal canal or in the urinary tract. All the local meddling in the world will not help unless the source of irritation elsewhere is removed. I believe that tonsils, whether they appear to be infected or not, should always be removed; for it has been my experience that it is impossible to improve a chronic ear condition as long as they remain in the throat. I recall one patient who had undergone strenuous ear treatments in another city for over two years with no improvement. She developed an acute tonsillitis and I told her her tonsils would have to be removed. Almost at once there was an improvement in her hearing which has continued.

Here again, the local treatment will vary with the individual. In almost all instances there is some pathology in the Eustachian tubes which will respond best to medication on an applicator and a bougie. Adjuvants to treatment are diathermia, violet ray direct to the Eustachian tube, ultraviolet ray and vibratory massage. I have not the time to go into details of treatment here. In many cases where we are unable to pass an applicator or bougie, we are able to open up the tube by making a direct application to the tube of the high-frequency current passed through an especially made vacuum electrode.

We are beyond the time where it is necessary to fool either the patient or ourselves. If proper intelligence is used in getting at the etiological factors and in making proper hearing tests; if one gives his treatment according to the findings in the individual case, it will not be long before he discovers that he is making progress. It is our custom to treat one ear at a time and to allow an interval of three days between treatments. Four treatments are given to either ear and the hearing then again tested on the audiometer. If the hearing is the same or if it has improved, we are more than satisfied. If the deafness has increased, we feel that it is necessary either to try some other procedure or to advise the patient that medical treatment is of no use and that we must find some method of mental reconstruction which will make life more than worth while living. If the patient has improved, he is given a rest for a few months, the hearing is again tested and, if we feel that we can make further improvement, he undergoes another series of treatments.

I have spoken of mental rehabilitation or reconstruction of the deafened. It is an absorbing subject and has been well dealt with in a recent book called "Ears and the Man," written by three of the social workers of the New York League for the Hard of Hearing. The physician's duty does not end with the medical treatment of his patient. Few of us would meet with success if we depended upon this alone. The confidence our patients have in us, their willingness to follow our orders, regardless of their own judgment, demonstrates the time worn adage that confidence is half the treatment in getting the patient well. No class of patients with whom we come in contact needs the personal element injected into his treatments more than the deafened patient. He is looking for comfort; he is looking for someone to say that he is a fit individual for society; he is looking for someone who will tell him the proper lines of conduct to pursue both in his social and industrial life. And none is better fitted for this task than the physician or otologist who knows so intimately what his trouble is.

EDUCATION

You will ask what the physician can do under these circumstances. I shall answer this first by telling you that the deafened themselves have opened the way by establishing Leagues for the Hard of Hearing throughout the country who have consolidated themselves into a national organization called the American Federation of Organizations for the Hard of Hearing. Such leagues should be in every city in the United States and in the course of time, they will be. They were primarily formed for mental rehabilitation of the adult hard of hearing but their principle task at present is to teach the profession and the laity that deafness can be prevented.

The work of these organizations falls into four classes—education, social service, employment and recreation. First such deafened persons are told that medical treatment is useless. They are then taught lip-reading (the greatest boon to the deafened) or else they are helped to select the proper hearing device. They are urged to use the radio, with high amplification, as much as possible. It is surprising how many of these people have had their lives made liveable by proper education along these lines. Social service consists in helping these people with their intimate home and social problems. It may happen that they are in the wrong employment; it may happen that they are associating with the wrong people. The employment department means a great deal to these

people. It is unfortunate enough to be deafened if you belong to a class where making your own living is not of particular moment; but it is disastrous if you have to make a living wage for yourself and your dependents. Many a deafened person is in the wrong employment and stays in it until he is discharged. When that time comes he is a hopeless despondent because he has seen what was coming for some time. No deafened person should try to be a salesman or a trained nurse but that does not mean that there are not many other kinds of work which he can perform efficiently. I have seen a trained nurse transformed into a laboratory technician in a short time; I have seen a salesman made into a first class jewelery worker overnight. In our employment bureau at the New York League for the Hard of Hearing, we are able to place over 90 per cent of our applicants in satisfactory positions and many of these people were misfits before. The recreation department of these leagues is most worthy of comment. Most deafened people feel that they are excluded from the joyous society of hearing people. At first such a person attempts to "listen in" but, after a while, he gives it up as a bad job. The result is that he slinks off into a corner if not actually, he does so figuratively. When he first enters into the social activities of the League, he is likely to take the same attitude. But when he sees other deafened people around him, some of them so badly off that a hearing device is of no use and resort is made to lip-reading alone, he begins to feel that he is not the only one afflicted and that there are others worse off than he is. As time goes on, he attends the men's or women's clubs, plays the games and makes new friends until he finds that he is far happier than he had been for many years. When one has seen a young girl who was about to commit suicide because of her infirmity, turned into a happy human being; when one sees a man of 50 who has lead a secluded life for a number of years dancing happily; when one sees an economic misfit put into a proper working position; in fact when one sees a group of deafened people transformed from a grumpy lot of down-in-the-mouth individuals into smiling and joyous deafened people, he is satisfied that this new work for this class of unfortunates is more than worth while.

RELATION OF PULSE RATE AND PULSE PRESSURE TO BASAL METABOLISM*

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KALAMAZOO, MICH.

The relation of pulse rate and pulse pressure to basal metabolic rate has been commented on by many observers. A survey of the literature published on this subject during the last five or six years reveals a considerable degree of unanimity among those who have written on this subject. It is not my intention to review this literature. I wish to present the result of my own observations on a series of cases and to call attention to the fact that these observations agree for the most part with what has already been published on this subject. My reason for this presentation is to call the attention of the men in general practice to a method of diagnosis which may be a help in cases which offer difficulty.

In a general way we may state that increased metabolism is attended by an increase of the pulse rate and the pulse pressure. We are familiar with the fact that increased exercise, intake of food or nervous excitement is associated with an increase in pulse rate. We also know that the blood pressure readings under conditions of rest and relaxation are lower than when for any reason metabolism is increased. The explanation of this is quite evident. Increased metabolism means increased oxydization. The oxygen is carried to the tissues by the blood. The increased demand for oxygen is satisfied by the greater volume supplied to the tissues. Now the blood supplied to the tissues depends under normal conditions mainly on two factors—the rate of the heart beat and the force of the heart beat. The rate of the heart beat is easily counted. The force of the heart beat is best determined by the difference between systolic and diastolic pressures.

There are certain pathological conditions to be borne in mind which may modify this general statement. In conditions of anemia where the oxygen transfer is interfered with by a lack of oxygen carrying hemoglobin we have an increased pulse rate due to a failure of internal respiration. In essential hypertension arterial and capillary resistance brings in an added factor which must modify the general statement. In organic heart disease—especially in auricular fibrillation and in aortic valve disease pulse pressure readings are not of great value in indicating metabolism. Except for some such abnormal conditions we may state that the pulse pressure and the pulse rate indicate the basal metabolic rate..

That an increase in the pulse rate is a fairly constant symptom in hyperthyroidism is generally accepted. This is probably the most important single symptom of the disease. In fact, with our present knowledge of thyroid function it may be stated that, in every case of rapid pulse in which other cause for the tachycardia is not apparent, we should consider hyperthyroidism as a possible cause. On the other hand,

* Read before Section on Medicine, M. S. M. S., Lansing, September 1926.

in cases in which hyperthyroidism seems to be present, a slow pulse under conditions of rest should make us suspicious of the possibility that the symptoms are due to something other than thyroid disfunction. Sturgis and Tompkins state that in their work at Peter Bent Brigham Hospital an increased basal metabolism is seldom found with a pulse rate, at complete rest, below 90 per minute and rarely found with a rate below 80.

The consideration of the added factor of pulse pressure gives us a still better basis on which to estimate metabolism. In exophthalmic goitre the diastolic pressure is likely to be low while the systolic pressure shows varying degrees of elevation depending upon the degree of over function and the length of time the symptoms have been present. In toxic adenomatosis there is likely to be an elevation of both the diastolic and systolic pressure with a high pulse pressure. Read of the Stanford University School of Medicine states that by a consideration of the two factors—pulse rate and pulse pressure—he can predict the basal metabolic rate within 20 per cent in 91 per cent of cases and within 10 per cent in 60 per cent of cases.

We should like to present a series of 217 metabolic readings. These cases were all sent for basal metabolism estimation because of suspected hyperthyroidism. In preparing the figures which we are presenting we have eliminated all cases of auricular fibrillation and of definite aortic disease. All other cases have been included. Basal metabolic rates were estimated by the Roth-Benedict metabolimeter. Pulse rate was determined preceding and following the metabolism estimation. Where there was a variation in the pulse rate in the two readings the lower of the two readings was taken. The blood pressure readings were taken immediately following the metabolism estimation while the patient was still reclining. In this connection one should call attention to the fact that under these basal conditions not only is the pulse rate lower than under ordinary conditions, but that both the diastolic and systolic blood pressure readings are lower.

We have tabulated these cases according to the metabolism rate and have then taken the average of the product of the pulse rate and the pulse pressure for each of the metabolic rates. For example, we may say that the normal pulse rate is 80 and the normal pulse pressure somewhere about 50. The product of these two factors is 4,000. Our figures for the series of 217 cases is as follows:

PULSE RATE TIMES PULSE PRESSURE

14 Cases below minus 10	3470
68 Cases between minus 10 and plus 10	3673
33 Cases plus 11 to plus 20	4662
35 Cases plus 21 to plus 30	5202
18 Cases plus 31 to plus 40	5952
10 Cases plus 41 to plus 50	6590
39 Cases over plus 50	8716
217 Cases	

It will be seen from this that averaging all the cases in the series there is a fairly consistent rise in the product with the increase in metabolic rate.

A consideration of the average rate alone in these cases is also of interest. The table is as follows:

14 Cases below minus 10—average pulse rate	80.7
68 Cases from minus 10 to plus 10—average pulse rate	82.
33 Cases plus 11 to plus 20—average pulse rate	90.
35 Cases plus 21 to plus 30—average pulse rate	92.9
18 Cases plus 31 to plus 40—average pulse rate	93.6
10 Cases plus 41 to plus 50—average pulse rate	100.
39 Cases over plus 50—average pulse rate	113.5
217 Cases	

It will be seen from this that the rate increases fairly consistently with an increase in metabolic rate.

A consideration of the average pulse pressure alone is seen in the following table:

14 Cases below minus 10—average pulse pressure	43.
68 Cases from minus 10 to plus 10—average pulse pressure	44.8
33 Cases from plus 11 to plus 20—average pulse pressure	51.8
35 Cases plus 21 to plus 30—average pulse pressure	56.
18 Cases plus 31 to plus 40—average pulse pressure	63.6
10 Cases plus 41 to plus 50—average pulse pressure	65.9
39 Cases over plus 50—average pulse pressure	76.8

From this it is seen that the pulse pressure increases as the metabolic rate increases.

While the law of averages is not convincing, it is only by observing such averages that we may reach conclusions. Of course the larger number of cases reported, the more certain may one be of his conclusions.

While I should not wish to advocate the method of estimating basal metabolism from an observation of pulse rate and pulse pressure, I do believe that this method offers a way of selecting cases for metabolic rate tests. If one will visit his patient at the house in the morning, having him remain in bed without eating until the readings are taken, one can get much valuable information which cannot be secured when the patient in the course of his daily activities, visits the office. Pulse rate and pulse pressure under basal conditions are much different than when made during routine office examination. In case the readings cannot be

made under basal conditions, allowing the patient to lie quietly for thirty minutes or more will be of value in such estimations.

In conclusion I wish to say that, as a result of these studies, I am of the opinion that by considering the two factors, pulse rate and pulse pressure taken under basal conditions, we can with a considerable degree of accuracy estimate the basal metabolic rate. At least we may judge what cases will be normal or below and what cases will be markedly elevated in the majority of cases. Of course it is the border line cases and the exceptional cases that make necessary the estimation of metabolic rates by more exact methods.

DISCUSSION

Dr. William Vis (Grand Rapids): I think this is a valuable contribution. It isn't every one of us who can have metabolic determinations made as often as we wish and when we wish, and here is a method which certainly is open to us in a much wider range than the metabolic determinations are for most of us.

I am particularly interested in these studies of Dr. Jackson because in a sense he has been thinking of the same line of studies that I had in mind in the paper which I presented this morning. I am also interested to note that where he had his pulse pressure approximately 70 points, his metabolic rate was about 50 or better. Roughly speaking, I think that confirms the idea I had in mind this morning when I called attention to some of our slides where there was an approximation of femoral and brachial pressures and the diastolic was just half of what the systolic was in those in which we noticed it.

I think Dr. Jackson is entirely right in stating that the pulse rate is our most dependable sign in hyperthyroidism. Although this pulse rate is a very variable factor, that in itself is an evidence of hyperthyroidism and nervous instability.

Chairman Sladen: May I add a word of congratulation to Dr. Jackson? It seems to me a man who has carried on the work of the Council for four years and has had time to do such careful clinical observation as this should be congratulated. He has emphasized a real vital point, it seems to me, that should be emphasized in every paper which deals with blood pressure readings, with pulse readings, pulse pressure, respiration rate or basal metabolism, and that is there is a difference between basal conditions and ordinary conditions. I think it is just as important if one is studying blood pressure that they make observations, take care, give consideration as to the conditions under which these readings are taken that they be just as basal as possible. The very best basal condition for a patient at the best is very poor. One can't eliminate the nervous and mental factors entirely. One can control food and pain and time of day and the condition of the bowels and exercise, but one can't eliminate the nervous feature which prevents one from getting a real basal condition. That has all been emphasized so much in regard to basal metabolism determinations. One is apt to be a little loose in emphasizing it in taking blood pressure observations, pulse rates and others.

I think Dr. Jackson's observations have peculiar value in that he has emphasized that one control point that is very vital.

STUDY OF FEMORAL BLOOD PRESSURE IN 600 CASES WITH SPECIAL REFERENCE TO HYPERTHYROIDISM*

(Preliminary Report)

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INTRODUCTION

It is generally assumed that blood pressure is uniform in all the large branches of the aortic system. Physiologists have recorded only slight differences in the large arteries and textbooks state that such variations are insignificant.

Physiologically speaking, this theory may be correct, as the physiologist deals primarily with normal function. In normal patients there is only a minor difference between the pressures in the brachial and those in the femoral arteries. However, in abnormal subjects there may be a marked discrepancy between these pressures. Although the theory may hold in the field of normal physiology, in the field of pathological physiology it fails to hold.

This was pointed out some thirty years ago by Leonard Hill, who studied the pressures in cases of aortic regurgitation. He found the femoral pressures higher than the brachial and the pulse pressure also higher in the femoral artery.

The findings of Leonard Hill provided the incentive for the study reported in this paper. Hill's figures on aortic cases were confirmed as shown in Table 1. The writings of Hill and his associates emphasize the diagnostic value of the femoral pressures, assuming that the findings are pathognomonic of aortic regurgitation.

Our experience is not entirely in accord with this. Femoral blood pressure may be greatly altered in conditions other than aortic lesions. Particularly in arterio-sclerosis with hypertension has this been found to be the case. The femoral pressure may exceed the brachial by as much as 80 or 100 mg. of mercury in arteriosclerosis. A difference of 50 mg. of mercury or more is common in hypertension. The systolic pressure shows relatively more discrepancy than the diastolic and, as a result, the pulse pressure is higher in the femoral than in the brachial artery. (See Table II.) It is an interesting speculation to inquire why the femoral pressure should be higher.

MECHANICAL CONSIDERATIONS

It has occurred to many of you, undoubtedly, that the size of the artery might effect the

* Read before Section on Medicine, M. S. M. S., Lansing, September, 1926.

blood pressure. The femoral artery is larger and has a thicker wall. The heavier wall may require a slightly greater force to compress it and, consequently, give a higher reading. The leg muscles are also larger and may interfere with compression of the femoral artery so as to give a higher reading of the sphygmomanometer. The femoral artery conveys a larger stream of blood and it is more directly in line with the current in the aorta. Both of these factors would tend to increase the momentum of flow in the femoral more than in the brachial and might increase the blood pressure.

All of these anatomical factors are essentially constant in their action. One would expect to find their influence on pressure to be the same at every reading. We cannot conceive of the arterial wall or musculature of the leg except as constant factors.

If femoral pressure were always found higher than brachial, these anatomical factors might serve as the explanation and we might easily be misled into accepting this conclusion. However, the exceptional patient, as we shall show subsequently, throws some doubt on any anatomical explanation.

Femoral pressures are not necessarily higher, not even in arterio-sclerosis or in hypertension. They may be identical with the brachial pressures or only slightly higher. Apparently this occurs in so-called "essential hypertension" as well as in arterio-sclerosis with or without hypertension.

EQUALIZATION OF PRESSURES

The phenomenon of an elevation of femoral pressures in itself is an interesting discovery. Far more interesting to me is a second discovery relating to the behavior of the brachial pressures in the presence of high femoral pressures. This may well be illustrated by an actual case history.

Mr. O. E., age 30 years; a case of hyperthyroidism; the arm pressures taken at various times were as follows: (Table V.)

146	80
168	78
144	78
165	82

These figures acquire a new significance when the simultaneous femoral pressures are appended, as follows:

Brachial		Femoral	
Systolic	Diastolic	Systolic	Diastolic
146	80	178	80
168	78	170	84
144	78	180	92
165	82	178	88

Also in the case of Mrs. E. S., age 38 years.

140	68	194	76
144	78	196	78
178	82	180	82

Some of these readings show the femoral higher, but in others it equals the brachial. It is suggested by these series that at times the brachial pressures may rise until they approximate those of the femoral. Examination of a large number of patients confirms this suggestion.

The reason for this equalization of pressure is not apparent. In general, it may be stated that in normal patients at rest it does not occur, as the femoral readings are always somewhat higher. Nor does it appear as a result of arterio-sclerosis or cardio-vascular disease.

In the series here reported equalization of pressures occurred predominantly in the thyroid type of cases. Cases of toxic goiter have shown the phenomenon in its most marked form. A few cases of non-toxic goitre also show it, as well as a third group with an involvement of other endocrine glands. A comparison of hyperthyroid cases with normals will bring this out more in detail.

Table III shows some examples of brachial and femoral pressure in average cases. It will be noted that the femoral readings are higher for both systolic and diastolic pressures. The pulse pressure is higher in the femoral artery both relatively and absolutely.

If these figures are representive they would seem to indicate that brachial pressures normally are lower than femoral.

In contrast with the normal figures we have in Table IV some pressures taken on thyroid patients, most of whom show an approximation of the brachial and femoral pressures. These, however, are selected cases. If all thyroid cases are taken there will be some who do not show this equalization of pressures.

The reason for the non-conformity may be brought out by referring again to the slide shown a few minutes ago. In the case of Mr. O. E. (Table V) one of the readings shows the characteristic equalization; another shows a partial approximation; and two fail to show it at all. This indicates that the syndrome may be present only at times. In our experience most thyroid patients show this inconstancy, (Table VI), while a minority have maintained an equalization.

This inconstancy of the findings detracts from its value as a diagnostic sign, but does not entirely invalidate it. Many other diagnostic signs may be inconstant, e. g., fever. In a tuberculous patient, we may find a temperature normal in the morning but elevated in the afternoon. Similarly I believe that equalization of pressure may occur only at times of greater pathological reaction much as a febrile rise occurs at the height of the reaction in tuberculosis.

The case of Mr. O. E. illustrates this (Table V). In the first reading he was relatively calm and his pulse rate was 85 per minute. The

brachial pressures are lower at this time. At the second reading, four days later, he was very nervous and his pulse rate was 140. Here we find that the brachial pressure has gone up until it equals the femoral. The third reading was taken four hours later after the patient had quieted down and showed a normal relation except that all pressures are somewhat high. The fourth test shows a partial approximation and was taken after a very restless night.

We might be tempted to conclude that the equalization can be illicited best during the period of greatest thyroid toxicity. Although a number of patients have shown similar reactions, our series of cases does not provide sufficient data to warrant such a conclusion.

DISCUSSION

Now let us go back to the consideration of what causes a higher femoral pressure. The anatomical factors are constant and could possibly account for a constantly higher pressure, but fail to explain pressures that become equalized at times. Therefore, we must look beyond the anatomical for an explanation.

The mechanics of blood flow may have a bearing on differential blood pressure changes. Blood flow is the main factor in the rise or fall of pressure in the body as a whole, but it is difficult to understand how it could cause a discrepancy between pressures in the arm and the leg.

If we include the vascomotor system we might conceive of a mechanism producing differential changes in pressure. We know that the vascomotor system does not effect all arteries equally; in fact, it does not effect certain arteries at all directly. Strictly speaking, one should differentiate between vasomotor and vaso-reflex systems. It is probable that both are involved in the maintenance of blood pressure.

Another possible factor is a chemical or physio-chemical one, viz., adrenalin secretion. We know that adrenalin does not effect all arterioles equally and it is conceivable that it might act so as to raise femoral pressure more than brachial. I have performed some experimental work with the use of adrenalin hypodermatically. I believe adrenalin does not account for it.

TECHNIC

The technic of estimating the blood pressure in the femoral artery is similar to that of taking brachial readings. The cuff is applied just above the knee and requires only the addition of a longer wrapping to hold it in place. The Korotkoff sounds are elicited with the stethoscope placed over the popliteal artery. The patient must be in the horizontal position and the head should probably not be much higher than the body. In our records the prone position only has been employed. The leg is slightly drawn up and abducted. To one unaccustomed to the technic, it might be easier to use the supine position. Either leg may be tested as there seems to be no variation between the two sides. The same precautions must be observed as in taking pressures in the arm, viz., avoidance of pain, cold, excitement, etc.

The type of sphygmomanometer is not of much importance, providing that the apparatus is in good order. The Tycos type is sufficiently accurate. I have experimented with original apparatus and cuffs of various widths and found the standard types as good as any.

CONCLUSION

Whereas a study of some six hundred patients with a variety of pathological findings is too limited to warrant conclusive deductions we must be satisfied to point out certain highly suggestive phenomena and leave for further research the final conclusions. With these qualifications in mind, it seems justifiable to state that:

First—Femoral blood pressure is usually higher than brachial pressure.

Second—In hypertension and in arterio-sclerosis the femoral may greatly exceed the brachial pressure, with a relatively higher pulse pressure in the femoral.

Third—In thyroid cases there may occur an equalization of pressures, the brachial apparently rising to the level of the femoral.

Fourth—Such equalization of pressures may become permanent.

Table I

AORTIC REGURGITATION

Brachial		Femoral	
Systolic	Diastolic	Systolic	Diastolic
112	55	169	62
105	72	128	86
165	42	192	42
136	38	169	48
130	80	162	88
136	38	242	68
140	32	202	38
112	28	164	44
145	20	160	42
100	38	162	62
122	58	178	64
180	50	236	72
182	76	182	76
165	20	260	28
144	48	228	52
150	88	186	105
142	40	252	44
114	60	168	72
176	88	248	88
162	98	203	112

Table II

HYPERTENSION

Brachial Systolic	Brachial Diastolic	Femoral Systolic	Femoral Diastolic
162	84	214	98
192	108	274	137
234	142	294	158

ARTERIO-SCLEROSIS

180	81	254	118
232	121	328	132
182	107	234	120

Table III

AVERAGE CASES

Brachial Systolic	Brachial Diastolic	Femoral Systolic	Femoral Diastolic
72	47	96	53
101	67	124	83
108	66	122	73
112	76	144	88
124	65	153	82
176	88	248	88
205	128	244	134
235	98	270	112

Table IV

TOXIC GOITER CASES

Brachial Systolic	Brachial Diastolic	Femoral Systolic	Femoral Diastolic
134	72	134	78
138	58	144	58
178	78	184	98
164	82	164	82
162	82	152	82
160	70	181	79
120	81	178	86
122	66	158	80

Table V

MR. O. E., AGE 30

146	80
168	78
144	78
165	82

Brachial Systolic	Brachial Diastolic	Femoral Systolic	Femoral Diastolic
146	80	178	80
168	78	170	84
144	78	180	92
165	82	178	88

Table VI

MRS. E. S., AGE 38

Brachial Systolic	Brachial Diastolic	Femoral Systolic	Femoral Diastolic
140	68	194	76
144	78	196	78
178	82	180	82

MRS. H. E., Age 26

138	72	146	78
152	82	152	82
122	78	140	82

Dr. George Wood (Detroit): Mr. Chairman, just one item I would like to give here that might be of interest in connection with this. The paper was very illuminating and very instructive and gives food for thought. The point I would like to give is a case which I ran across a few months ago, illustrating the possibility of the variation of blood pressure between the two sides of the body. Ordinarily we assume it is the same on both sides. I saw a case which had at irregular intervals epileptoid attacks. It was a very irregular sort of a case and in taking the blood pressure one day and again the next day, I accidentally used opposite arms and discovered such a variation of blood pressure that the next time after taking the blood pressure on one arm, in order to check up I took it on the other arm and found the systolic pressure on one side only equal to the diastolic on the other. The case never was followed through. I couldn't give any reason for it, but it is just a fact that I thought I would report. The diastolic and the systolic may step up; and then the diastolic on the other side was the same height as the systolic on the first side and from there up again.

Chairman Sladen: Is there any further discussion? I have become extremely interested in the basal metabolic rate of these cases. I don't know whether it is possible for Dr. Vis to give us some information in regard to it. Perhaps our President in his first public appearance right after lunch in this Section can give us some information. I wish to advise you all of that fact, maybe he will touch upon that this afternoon. His subject is very akin to the one just presented. It seems to me that it is appealing at any rate. I believe no one should discuss this paper without having it in writing and giving it a great deal of thought. It is difficult to consider it, it is very fundamental, I think, but it seems to me that there must be structural differences between the brachial and femoral to account for the difference in normals. I do know in some work that I am carrying on that the basal metabolic rate and the use of oxygen there in the body have a great deal of parallel. They are not accountable for the changes in blood flow and the changes in pulse rate and the changes in blood pressure. I was quite struck with the fact that this equalization seemed to be an expression of more variability in the brachial and not in the femoral. The femoral is already an elevated pressure and, therefore, has not the privilege of being more variable, I mean it is fixed because it is high. High blood pressures can not go so much higher as low pressures can. That is a fact in handling hypertension cases which I have been interested in, determining the range of variability there is in the different elevated blood pressures. This elevation in the brachial, which has so much more chance to show itself because it is in a lower blood pressure, shows itself in those cases that seem to be more and more hyperthyroid and have more and more elevated blood pressure. At any rate his recital of the case of apprehension towards operation and then the restless night and the cases of equalization was interesting. In that one instant the patient was more basal and less hyper. Of course, I apologize for discussing the paper. I think it needs much more study, but I couldn't help saying that it appealed to me as I heard it, and it is somewhat akin to an interest of mine in my work.

Dr. F. P. Currier (Grand Rapids): I would like to ask Dr. Vis what type of stethoscope he is using and if he has found any variations in the diastolic pressure by various manipulations of the test. Personally I use a Bell stethoscope and I have noticed in some cases in older individuals with high pressure, by manipulating the stethoscope so as to compress the artery, sometimes it is possible to run the diastolic pressure down to zero and you can hear it all the way down to zero. That is a point I never happened to notice in the text books, but I don't doubt that it is there and perhaps many of you have noticed it. I should think in research work of this sort that it would be absolutely necessary to adopt a standard stethoscope and take your readings in as much a uniform method as possible.

Dr. William Vis (Grand Rapids): As regards pressures on different sides of the body, the Cyriax of England, have written a great deal about finding high pressure on one side and a lower one on the other.

I am very skeptical about the whole thing. I don't want to question Dr. Wood's observation either. We know there are certain anatomical and pathological things which will distort the pressures. Where the blood flow on one side is less than the other, such as a cervical rib or aneurysm, perhaps you can think of others, tumors, perhaps neurological things that might interfere with the blood flow on one side, there are undoubtedly such cases. Cyriax describes the influence of pleural effusion on one side, and again I haven't found it, although I have taken a great many bilateral readings.

I am very much interested, of course, in metabolism. This young man whom I have used as a sort of text here had a metabolism of only plus 30 or so when he came in. It was taken repeatedly in the same institution without his leaving the place, and the metabolism gradually came down plus to 10. All the readings, perhaps six in number, faded right down as one would expect in an excitable person.

Again taking the liberty of saying something in regard to metabolism, pulse rates, although I would very much prefer to withhold entirely, certainly until after I have heard from Dr. Jackson, I believe that our metabolism readings are given entirely too much credit. I think if we could take metabolisms 10 times a day, we would probably get eight different readings with minor variations. When I suggested this to a doctor just the other day, he said, "Well, you are not thinking of basal metabolism readings." Perhaps that is true. I was thinking of the metabolism such as it occurs in the human body without any preparation, fasting and so on, but if we take our metabolism rates time and again as we go, I think we will find a constantly varying metabolism rate, much as we find a constantly varying temperature or blood pressure reading. I don't believe a series of metabolism readings would more than correspond roughly with anything that I have in mind here, although it certainly would have to be checked up very carefully.

Dr. Currier's suggestion about hearing other sounds and hearing the diastolic at the right height is most important. If I may be so free as to venture an opinion about the phenomena which he talked about, that is not due to pressure of the stethoscope on the artery primarily. We will find certain patients where even in the arm there is no silent phase, no fifth phase according to the Korotkoff devices, the sounds never cease, even if you have no pressure on the arm at all you can still hear the arterial sound come through. We find this occurring a little more often in the leg than in the arm. One might well have spoken also of the difficulty in knowing where the diastolic reading is to be made. That I think is quite a point. I have used arbitrarily the disappearance of the sound as the most likely to be constant and heard without too much difficulty.

I believe, however, after taking hundreds of pressures that apparatus and methods of hearing are minor things. I have only used the Bell scope. I have been at this nine years, just working away at it. I believe after all these readings, the mechanism, the technic and the apparatus are all minor things. I don't quite subscribe to Dr. Sladen's idea that in a normal the anatomical considerations account for the higher femoral pressure. I have seen too many cases where it disappeared.

I might cite one case, if I may take so much of your time, one of the first patients I ever studied, a girl 16 years old who fell off a four-story building onto the street on a winter night when the roof was slippery. Having just become interested in this, I decided to take her pressure at once, and I found that her brachial pressure was 60 systolic and her femoral was 82. She reacted to her surroundings sufficiently so that she knew she was hurt. She had two fractures of one arm and a fracture of the hip and fractures of the cranium, concussion, and so on. She promptly went into a comatose condition, and it was very interesting to note that this young lady in this comatose condition had an equal pressure in the femoral to that of the brachial, whereas when she recovered to a certain extent and became aware of her pain, the femoral pressure went up about 20 points. That is only one instance. I could tell you of many patients who never have anything but equalization, and I don't know why, excepting that they all seem to fit more or less into the endocrine type, not definitely the thyroid, hypertensive type. (Applause).

GYNECOLOGICAL DISTURBANCES OF MECHANICAL ORIGIN*

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Gynecological disturbances may be conveniently divided into several different groups, the basis for this arrangement being the etiology. Thus we have disturbances due to inflammatory causes; those due to new growths; those due to congenital defects, functional disturbances; and finally those of mechanical origin. Under this last heading are included those complaints or disturbances produced by lacerations of the pelvic floor; displacements of the uterus; postural defects not organic in type; and constipation. On first thought, one might feel that any consideration of the lesions mentioned is unnecessary and is merely a repetition of what has been discussed many times before—that, after all, a laceration is just a laceration, constipation simply constipation, postural defects nothing more or less than just that, and the treatment obvious in each instance. Any careful observer has learned, however, that the correction of a laceration or retroversion does not always result in the expected relief. This disappointment occurs only too often. Many, no doubt, have wondered why—when the lesion seemed so obvious and the repair so easy. Often one factor is secondary to the other, and symptoms attributed to one may be produced entirely by the other.

I have long felt that the many failures—complete or partial—in treating complaints arising from this group of mechanical factors has been due largely to: (1) a lack of knowledge regarding the actual production of complaints referable to this group, and (2) to the lack of understanding regarding the interrelationship which exists between these mechanical factors.

Symptoms or complaints which may be attributed to this group are numerous, often

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vague and rarely acute in type. Those most frequently heard are general fatigue, loss of pep, malaise, tired out feeling, dragging sensation, bearing down, bachache, leucorrhea, pain in both lower quadrants, menstrual disturbances such as dysmenorrhea, menorrhagia, etc. Many of those complaints may be made by the same individual.

In the inflammatory group the symptoms are pointed, the lesions definite, and the treatment generally satisfactory. The same may be said regarding new growths. The trouble is obvious and its removal generally means cure. Not so in the group under consideration. Here the cause is not so definite and is often overshadowed by more apparent lesions which, however, are not primary in producing the patient's complaints.

Only by a proper understanding of the mechanism of production and the relationship which exists in this group can satisfactory treatment be expected.

It is not my aim to elaborate in detail on each of these mechanical factors. Those desiring detailed study of the subqect will find plenty in the literature to aid them. It is hoped, however, that the brief outline presented here will be sufficient to give a clear insight into the relationship between the mechanical factors of this group and their relation to symptoms produced.

Consider the mechanism of pelvic support. It is common knowledge that the pelvic floor, as such, does not in itself provide the entire support to the lower opening of the abdomino-pelvic cavity. Were this the case, a simple laceration would be sufficient to cause prolapse of all pelvic viscera. The actual support, of which the pelvic floor is a part, is produced by a very definite mechanism of deflecting planes. This arrangement when undisturbed maintains the normal balance of abdominal and pelvic viscera. The entire abdomino-pelvic cavity may be likened to a cylinder with a variable ceiling (diaphragm), at the bottom of which exists an arrangement of sloping or deflecting planes. These planes are arranged at different angles and slope in opposite directions. Thus, the plane of the pelvic inlet slopes down and forward. The second plane or plane of the uterus and curve of the upper sacrum slopes downward and backward. The third plane, that of the vaginal canal, pelvic floor and lower portion of the sacrum and coccyx slopes down and forward. Any force expended from above downward will be definitely diminished and taken up or diffused by these deflecting planes, (providing of course, that the cylinder is not fluid containing). Thus a certain force pressing downward will be deflected when it strikes the upper plane or plane of pelvic inlet. This plane is actually the upper promentory of the sacrum, muscles and portions of the innominate bones. The diminished pressure is next deflected from the second or uterine plane—made up of the uterus, broad ligaments, etc., and transmitted through these structures to the third plane. Further diffusion of the force occurs at the other planes with the result that at the outlet the active force is essentially nil. Sturmdorf states that, "It is a fundamental law in dynamics that the direction of a given force or body impelled by such force impinging against a resistant plane becomes deflected in a fixed and definite direction, the degree of deflection being governed by the angle of the resisting or deflecting plane. The same law is dominant in establishing and maintaining visceral equilibrium against the displacing force of gravity and intra-abdominal pressure. But for the influence of deflecting planes, every erect female would prolapse her abdominal contents into the pelvis and out through the vagina. As the result of normal deflection, a pressure of 80 mm. in the abdominal cavity is reduced to 60 mm. at the cervix, 40 mm. in the vagina, and 20 mm. at the introitus. (G. H. Noble)."

Any disturbance in this deflecting mechanism has its counterpart in the symptoms produced. Thus, a retroversion which places the uterine plane parallel with the plane above (plane of the pelvic inlet) as well as with the one below (plane of the vagina and pelvic floor) would cause greater pressure on the remaining planes and demand more from them in the way of support. Symptoms and tendency toward prolapse would be proportionately increased. Where such disturbance is further augmented by destruction of the vaginal plane as in cases of laceration or by disturbance of the upper plane as in poor posture, even greater trouble would be inevitable.

It can readily be seen then that there must be a very important relationship between the structures forming this mechanism of pelvic support. Once this is clear the symptoms so often associated with etiological factors in this group will be more easily explained.

In this mechanism the function of the uterus or uterine plane and pelvic floor or plane of the vagina is apparent and no further discussion is necessary.

So much has been said regarding constipation that one almost feels like apologizing for bringing it into a discussion of this sort. A feeling exists that any attempt to place the responsibility for gynecological complaints on constipation is absurd. There is a tendency to ignore constipation entirely or to dismiss it with a wave of the hand. The fact that at one time most complaints were attributed to

auto-intoxication arising from constipation is undoubtedly responsible for this feeling. The reaction which is always inevitable in any extreme has now carried us to the opposite view. This is unfortunate since it tends to make the cause of many complaints obscure and difficult. The careful observer is well aware of the discomfort and trouble produced by constipation and is ready to ascribe complaints produced by it to their proper cause. Kelsey has pointed out that chronic cinstipation produces a definite dilatation of the lower third of the rectum. This dilatation is associated with varicosities of the bowel, broad ligaments, and congestion of the pelvic viscera, etc. Pressure forward on the cervix and traction downward on the posterior wall of the vagina are also produced, resulting possibly in a retroversion. This displacement of the uterus is probably the kind so often seen in young virgins and when associated with a straight back is considered congenital in type.

The dilated veins of the lower rectum, broad ligaments, appendages, uterus, etc., produce a dull aching sensation which is so often referred to the sacrum. Where a retroversion has existed for some time, dysmenorrhea and other menstrual disturbances may appear. The dismenorrhea is generally characteristic in type, the ache coming on before the flow, generally preceding it by hours or days and ceasing as soon as the flow is well established. The physiological congestion imposed upon an already congested uterus and appendages results in the discomfort mentioned. Menorrhagia may be explained on the same basis, particularly the type seen in young girls. It is generally gradual in onset and varies from a slight increase in flow to a definite menorrhagia.

Backache, when complained of, is generally worse in the afternoon and at the time of the menstrual periods.

As a result of the chronic congestion occurring in these individuals, a distinct increase in glandular secretion occurs. There is often sufficient secretion from the cervical glands, to be troublesome. This is the type of leucorrhea so often associated with a general run-down condition, with no apparent local lesion o fthe cervix. It must be considered a symptom of general debility then as well as an indication of local pathology.

Constipation and the disturbances it may produce in the normal pelvic balance is thus seen to be quite marked and it begins often in early girlhood. It is obvious too, that correction of a retroversion occurring secondarily, as described above, would not cure the individual nor relieve all her symptoms. Retro-displacements of this kind are commonly operated upon, the individuals often returning for treatment with a maze of scars—a regular geographic abdomen, giving a history resembling an encyclopedia on abdominal surgery.

No less prominent place must be assigned to postural conditions. Poor posture and its relationship to the foregoing are extremely important. It is surprising how frequently we see young women, single or married, with posture varying from fair to bad. There is slumping or accentuation of the dorsal curvature with a compensatory change in the lumbar curve. Spasm of the back muscles may be marked or totally absent. In the early stage no organic changes are noted in the back, either on physical or X-ray examination. There is flattening of the chest, the costal angle is diminished, the rib margin and the diaphragm lowered. The abdomen bulges and there is a slight pot belly and visceroptosis. Unfortunately, these individuals enjoy sedentary habits. They indulge little in outdoor exercise. There may be spasms of exercise and athletics which are often stressed in the history, but questioning generally shows the individual to be of decidedly non-athletic tempermhent. As a result, we have an additional factor disturbing the normal balance. The deflecting planes are further thrown out of line. Intra-abdominal pressure is increased, the circulation poorer and oxygenation proportionately worse. Congestion of the abdominal and particularly the pelvic organs is increased. Because of the sedentary habits, the poorer oxygenation and the general lessening of muscular tone, the constipation is made worse. The demand upon the remaining normal pelvic planes is greater and coincident complaints more prominent. The importance of postural defects in this study is very great.

From the foregoing, it is clear that each mechanical factor must be considered with its companions in determining the causes of patients' complaints. Each must be considered as a possible cause in producing trouble. The primary condition must be determined and corrected. But it is obvious that simple correction of one factor producing the patient's trouble, particularly if it is not the chief one, without correction of associated etiological factors, can never result in anything but incomplete and temporary relief. Any or all these mechanical factors may be the fundamental cause of the patient's trouble. Any one may appear first—others developing later. In virgins chronic constipation is generally the first to appear and is generally the root of the trouble. Retroversion and poor posture appear a little later. In multiparae lacerations and retroversions are often first. It matters little, however, so long as the primary cause is located and the relationship existing between these eti-

ological factors properly considered in the treatment.

Time and space does not permit a full discussion as to treatment. A few pertinent suggestions, however, would seem wise. Constipation is, by far, the factor most slighted. The patient is often advised to take mineral oil and eat food with roughage. This with a few added hasty remarks concludes the treatment and the case is dismissed. The condition does not seem important enough for the physician to waste his time on, yet it is just this hasty, incomplete and unsatisfactory advice that not only results in failure to relieve the patient, but also often results in the doctor's losing the patient.

It is my opinion that few women suffering from chronic constipation can be satisfactorily treated in this way. Unless physicians are willing to give the time necessary in explaining fully what these patients should do, what they should and should not eat and drink, they had better not attempt the treatment. It is surprising how obstinate some cases of chronic constipation seem to be, yet how easily they are cured by a little real interest on the part of the attending physician. Every physician knows what these patients should and should not do, but not every physician is ready or willing to give the time necessary to convey such information. In all instances where chronic constipation is considered of etiological importance, the directions to the patient should be very specific and detailed. She should be told not only what she should eat but also what she should not eat. Outline of her living habits and advice as to exercise, etc. should be made clear. Only by so doing can we expect good results.

In the postural conditions, defects of organic nature should be diagnosed and treated accordingly. In simple postural conditions, however, as seen in this group, a definite regime of exercises should be outlined. Any group of exercises which have as their aim the strengthening of the back and abdominal muscles will prove satisfactory. It is important to remember, however, that nearly all individuals in this group are very apt to fall into their old habits and unless frequently encouraged and stimulated, little can be expected. Frequent reports and demonstrations as to their proficiency in the exercises advised are necessary. Every effort should be made also to make the exercises interesting, for they are very apt to become a daily drudgery instead of a daily dozen.

Lacerations, if sufficiently severe, must be repaired and displacement of the uterus and appendages corrected by either conservative or operative means, as may be indicated in the individual case.

Any other related pathology should have appropriate treatment. It is not intended for one moment that the conservative procedure outlined here will be a panacea for all ills in all individuals. In many, other conditions exist which require treatment. In the minds of many, the necessity for operation of some sort has become so firmly fixed that nothing short of operative procedure will suffice. This state of mind is often exceedingly hard to deal with. The doctor's patience is often tried to the limit. The patient must often be prodded into the ambition to become well, particularly if it requires expenditure of energy on her part. Seeing these patients in the proper perspective, however, will do much toward pointing out the real source of trouble. Proper consideration of all the mechanical factors mentioned coupled with appropriate treatment will rarely fail to give excellent results.

RUPTURE OF THE UTERUS AND VAGINA DURING LABOR*

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The frequency of uterine rupture during labor can only be estimated. Hospital statistics are misleading and since many women undoubtedly die of this accident without the attending physician diagnosing the condition we can only quote the text books. DeLee says that it occurs once in two thousand cases while Williams believes that it occurs more often. The large number of cases quoted in the literature, especially within the last 15 years, shows that an intense interest has been aroused in this condition, the frequency of which has been so greatly increased by the development of the Caesarian section and the use of pituitrin.

The 1st case is Mrs. B., a sextipara, 38 years of age. All previous deliveries were normal, and the patient had never been operated upon. She was admitted to the hospital at 2 A. M. August 11, 1923. At this time she was in a state of shock, pale and anxious looking, with sighing respiration and a weak thready pulse of 150. Examination of the abdomen showed the fetal parts very easily felt on the left and in the lower right quadrant was a hard firm mass which was probably the uterus. On vaginal examination there was no presenting part and the cervix was loose and flabby. There was a moderate bloody discharge. The pelvic measurements were 24—27—18—10.

Labor had begun at noon and had been quite severe throughout the day. By 6 p. m. the cervix was fully dilated. The presentation was cephalic and the head was apparently entering the inlet, at 7:30 p. m. ½cc of pituitrin was given with no appreciable progress. This was repeated at 9 p. m. The patient's pains were

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coming about every three minutes and were very strong. The uterus seemed to be pushed to the right side of the abdomen and in the hope that correction of this obliquity would aid in delivery ,a tight binder was applied at 10 p. m. At 1 p. m. after several very severe pains the patient collapsed and went into shock. Her pulse was 150 and her pains had ceased. A diagnosis of ruptured uterus was made and she sent to the hospital at once. Two hours after the rupture a midline incision was made from the umbilicus to the pubic. Abdomen was found to be full of blood clots and fluid blood and a dead fetus weighing eight pounds with the placenta were lying free among the intestinal coils. These were removed immediately and the abdomen sponged dry. The rent was found to be not in the uterus, but through the anterior fornix of the vagina between the cervix and the bladder, so that properly speaking we were dealing with a colporrhexis. The tear was directly in the midline and measured about 10 cm. Apparently under the influence of a strong expulsive effort the cervix had been pulled up over the fetal head and was torn loose from the vagina and its bladder attachments, thereby causing the fetus to escape into the abdominal cavity. The broad ligaments were clamped and cut and the uterus removed except for the portion of cervix posteriorly still attached to the vaginal wall. The cervical stump was whipstitched and a drain left in the vagina. The bladder flap was utilized in peritonizing the stump and the abdomen was closed as usual. The patient did not stand the operation well and returned to bed with a pulse of 180. However she reacted quickly to stimulants and hypodermoclysis, and by the fifth day her pulse was permanently below 100. Her highest temperature was 100.4 on the third day. The wound healed by 1st intention and she was discharged on the 12th day having made an uneventful recovery.

The pathological report by Dr. J. E. Davis: The specimen consists of the uterus and adnexa. The uterus measures 15cmx14xm39cm. The cervix is approximately 6cm across the external os and shows evidence of laceration. The adnexa shows moderate edema and there is a corpur luteum in each ovary, one of which is quite small. There is a recent hematome in the broad ligament of one side. The organ when bisected exhibits but a small amount of adhering blood clots and decidua . The musculature and particularly the peritoneum is anemic.

Microscopically there is a ruptured corpus luteum in one ovary and the vessels are congested giving the typical appearance that accompanies pregnancy. The uterine muscle contour faintly staining cell muclei and some small round celled infiltration in perioscular positions and near the endometrium. There are decidual cells and syncytial giant cells. The blood clots in the maternal blood spaces are phygenically infected.

Diagnosis: A case of ruptured cervix of uterus with pyogenic infection.

This then is strictly speaking, a case of rupture of the vagina and not of the uterus. However in considering the mechanics of the condition we must bear in mind that the birth canal is a muscular tube with the active contractile portion at the fundus and the passive expansile portion consisting of the lower uterine segment and the vagina. After complete dilatation of the cervix the lower uterine segment, cervix and vagina are functionally the same, they are merely passive walls of the birth canal. Consequently the etiology and even the symptoms of rupture of the vagina and of the lower uterine segment are alike.

In this case we were dealing with a flat pelvis which had apparently been adequate to deliver her previous children, but possibly on account of a posterior position she was unable to deliver herself at this time. According to Dr. Davis' pathological examination of the specimen there was evidence of uterine disease, as shown by the poorly staining nuclei of the muscle fiber and the small round celled infiltration about the blood vessels and under the dneometrium. In addition to these factors we have the stimulative action of pituitrin combined with an attitude of expectancy. To properly emulate each of these factors is difficult. We have all seen cases with smaller pelvis that have been in labor longer and where there was a mere radical exhibition of pituitrin, so undoubtedly it was the combination of all of these factors which caused the rupture in this instance. Her age coupled with the distension of the uterus by repeated pregnancies may also have tended to weaken the walls of the birth canals.

The second case Mrs. R,, No. 15379, aged 25, colored a para four with a history of three normal labors entered the hospital at 7:55 p. m. At 11 the evening previous to admission she had had some uterine cramps followed by bleeding and her attending physician stated that he had given her several ampules of ergot to control the bleeding. The pains suddenly ceased and the patient went into shock. On admission she was pulseless, her hemoglobin was 25% and there were 2,400,000 R.B.C. Examination of the abdomen showed the fetus to be easily felt on the right side beneath the costal margin. No fetal heart could be heard. On the left just above the tubes was a firm uniform mass about the size of a cocoanut. Vaginal examination revealed a cervix dilated about four cm with no presenting part in the pelvis. There was a scanty bloody discharge. Her condition improved after adrenalin and saline were given. The abdomen was opened revealing a dead fetus free in the abdominal cavity together with a large amount of fluid blood. The placenta was adherent to the left side of the fundu and did not cover the os. The tear began in the lower uterine segment and extended up through the right broad ligament to the right horn of the uterus. A supraragical hysterectomy was done including the right tube and ovary whose blood supply had been damaged by the rupture. She reacted quickly with stimulation and saline under the breasts. On account of difficulty in securing a donor she was not transfused until eight hours post partum when she received 300 CC by the direct method. Her convalesance was febrile, the temperature reaching 102 on the 5th day. She was discharged on the 20th day, fever free with a pulse of 80. Laboratory examinations which were made of necessity after the operation showed her Wassermann to be negative. The cervical and urethral smears were negative for G.C. Her blood count rose and on discharge her hemoglobin was 32% and her red blood count 2,840,000. The urine showed a trace of albumen the blood pressure was 80/50 on admission. Her measurements were normal and her physical examination was negative. The fetus was 6 pounds 5 ounces and 47 long. It had apparently been dead for several hours.

Examination of the patient on discharge showed the wound to be healed by 1st intention and the cervix was high up, bilaterally lacerated and the fornices were tender.

On this case we are dealing with a ruptured uterus due to medication. It is incredible to think that a licensed physician would give ergot under such circumstances, but the information was obtained from the physician himself. Whether it was ergot or pituitrin it was probably due to the all too pervalent desire to hurry to conserve the time of the obstetrician. This is particularly common in home obstetrics where the patient is not given the protection of the supervision of a good hospital.

The third case was Mrs. M., a para 3. No. 10066, whose expected date of confinement was Sept. 10th, 1925. She had a history of two normal deliveries previously and had received no prenatal care with this pregnancy. Her membranes ruptured July 27th. Her pain began in the morning of July 30th and at 9 p. m. they were every three minutes. The position was diagnosed as Scapula left anterior. At 12 midnight after several severe pains the arm prolapsed and at 12:18 she was delivered of a still born female weighing 4 pound and 14½ ounces. During the preparation for delivery the prolapsed arm retracted and the fetus was delivered as a breech. There was a profuse hemorrhage followng ths and the hand was introduced into the uterus to ascertain the cause of this. The placenta was found to be separated and there were numerous blood clots in the uterus. There was an irregular rent in the lower uterine segment into the left broad legament. This apparently did not go through the peritoneum. The patient was in shock, her pulse was 156 and she was put back to bed after being given saline and adrenalin. Her pulse gradually grew weaker and she finally died without rallying three hours after delivery. Application for autopsy was refused.

In discussing the etiology of rupture of the uterus and vagina there are several points which must be considered. In the first place we have factors which weaken the birth canal, and the most important of these is the Caesarian section. The best statistics on this subject have been collected in England by E. L. Holland who reported that of 479 Caesarionized patients who subsequently became pregnant, 18 had rupture of the uterus at the site of old scar, an incidence of 4.3 per cent. Considering that 336 had a second Caesarian and 42 aborted, we find that 79 delivered themselves naturally and 18 had a rupture of the old scar. In the face of such statistics it takes courage to allow a patient to deliver herself when one is in doubt about the integrity of her scar.

However, it must be remembered that these are statistics from all kinds of operators and under all kinds of conditions. Undoubtedly in our private practice our individual results would be better. Thus Findley, after an exhaustive review of all cases reported, concluded that with the proper technic in the suture and absence of infection, not over 2 per cent will rupture at a subsequent labor. A uterus which is properly sutured is in much less danger of rupture than one which is carelessly closed. The uterine musculature like all contractile tissue, retracts when cut, and interrupted or carelessly placed sutures will not approximate the cut edges. For this reason we feel that it is best to use layers of continuous cat gut which may be reinforced by interrupted sutures including the whole thickness of the uterus muscle.

Holland finds that uteri closed with silk showed a smaller incidence of rupture than those closed with catgut. His cases covering this point however, are too few from which to draw conclusions. He further reports that the chief factor weakening the scar is infection. This prevents muscle regeneration and results in a scar which is thin and filled with fibrous tissue. Such a scar is further weakened if the placenta becomes attached at that point. Abnormal distension of such a uterus produced by twins or hydramnious further increases the danger of tearing the old scar.

Other types of scars in the uterus must be considered as possible cause of rupture. Myomectomy, excision of the uterine end of the tube, weakening of the walls due to vigorous curettment or manual removal of an adherent placenta, scars from extensive lacerated crevices and scars from a previously ruptured uterus may all be causes of this condition.

Material disease such as fibroid will weaken the muscle. In abruptio placentae, a condition usually associated with maternal nephritis, we have a hemorrhagic condition of the musculature which will weaken the wall and may result in rupture. Adherent retroversion with a saculation of the anterior uterine wall, pregnancy in a uterus which has been utilized to support the bladder as in the interposition operation for prolapse, and saculation of the posterior uterine wall in anterior fixation operations have all been reported as a cause of this condition.

Abnormalities of the fetal membranes occasionally weaken the uterine walls. Hydatid mole and chorio epithelioma are characterized by the fact that the fetal membranes erode through the uterine musculature and thereby predispose to rupture. Placenta previa likewise causes a further weakening of an already thin portion of the uterus.

The second group of factors which predispose to uterine rupture are those which obstruct the birth canal. Here we must consider first of all contracted pelvis. The mechanics of this is obvious and need not be more fully dealt with here.

In this category we also have scars of the cervix as a result of previous operation, cancer of the cervix, scars of the vagina from previous deliveries, tumor of the vagina, tumor of the pelvis obstructing the birth canal.

Next we come to the various contributing factors and among these we have malpositions

of the fetus. Full presentation, transverse, brow and montrosities need only be mentioned to call to our minds the danger of neglecting to deliver them properly at the right time. More important, however, under this heading is the posterior position. One in five deliveries according to the texts, and a large per cent, according to our personal experience, were originally posterior. Most of our difficult cases are due to this error of rotation and it is the worst treated of all our obstetrical complications, because it is largely unrecognized by the general practitioner. It is probable that in the first case under discussion we were dealing with a posterior position.

Then we have the influence of medication. Ergot is no longer used during labor but undoubtedly it has caused its quota of trouble and apparently it was the cause of rupture in numerous cases. Pituitrin has become the second largest factor in the etiology of rupture of the uterus. A wonderful time saver for the busy practitioner, it was seized upon with the utmost zeal by most men when it was first introduced but before long an ever increasing number of tragedies were placed to its account, until finally there are those who discredit its use entirely before delivery. Used indiscriminately in large doses, as it is even in this day, it will sooner or later land the obstertrician into trouble.

Another contributing factor which must be considered is meddlesomeness. Many of the cases in the literature have been caused by the mid-wife attempting to deliver cases of dystocia. Most of these are so infected that the mothers either died before surgery was attempted or succumbed to peritonitis a few days later. Version in a dry uterus with a tetanically contracted Bandl's ring is one of our most dangerous, major obstetrical operations. Even surgical anesthesia does not relax this and all of us have felt a contraction ring so tight that it is impossible to pass the hand up into the uterus. It is in these cases that a threatened catastrophy can be averted by a skillful application of forceps, an art which is falling into disrepute in this day of Caesarian sections and indiscriminate versions. Careless application of forceps may include the cervical lip in the blade and the resulting tear may extend into the broad ligaments or even into the peritoneal cavity. Bags used in the induction of labor may cause a malposition or, as a result of inacurate insertion, may injure the uterine wall. Stiff bougies or tampons inserted for the same purpose must all be considered from the standpoint of the damage they may do to the uterus. Over distension of the uterus due to hydramnois or multiple pregnancy and injuries to the abdomen have been reported as causing rupture.

Usually we have two or more of these influences combining in the causation of any one case but the vast majority are accounted for by Caesarian scars, the indiscriminate use of pituitrin, meddlesomeness and prolonged expectancy in cases of disproportion or malposition.

In considering the pathology of rupture of the birth canal we find that the location of the rupture depends largely on the etiological factors involved. We may have a complete rupture, the condition in which the tear extends through the peritoneum and in which the fetus together with the placenta is found among the intestinal coils, or we may have the incomplete form in which the tear extends into the broad ligament but not into the peritoneal canal. In the first case the symptoms are usually more severe due to loss of blood. In the other instance the leaves of the broad ligament make the hemorrhage either smaller in amount or slower in developing so that the symptoms are not so urgent.

The rupture may be either in the fundus, the lower uterine segment or in the vagina. Rupture of the fundus is usually the result of previous Caesarian section, although other operations on the uterus may so weaken its walls that under the influence of uterine contraction the scar breaks. Degeneration of the muscle fibers as in the abruptio placentae may cause fundal rupture.

Tears due to disproportion, malposition, pituitrin or prolonged expectancy are usually in the lower uterine segment because normally it is the weakest portion of the birth canal. The firm muscular fundus unless diseased, practically never ruptures, but the thin walls of the lower segment under the influence of strong pains acting against an insurmountable obstacle, gradually becomes thinner and finally tear. The increase in the use of the low double flap, Caesarian will undoubtedly swell the number of these cases, although Dr. Lee claims that it does not weaken the uterine wall. This will be determined statistically in the future.

Finally the tear may be located in the vagina. To this classification our first case belongs and it is apparently the most rare of the various types of rupture, since we have been able to locate only eight cases in the literature in the last 12 years. The tear may be either anterior between the cervix and bladder or posterior into the pouch of Douglas. Three cases were anterior, three posterior, in one the vagina was completely torn off except for a small bridge laterally and in one the location of the rupture is not stated. In our case the tear was anterior and the fetus and the membranes were expelled from the uterus into the vagina and up anterior to the bladder intto the abdominal cavity. Fortunately the bladder was not in-

jured, but the vaginal branches of the uterine arteries were torn on both sides, thus accounting for the large amount of hemorrhage.

In those cases where there has been a rupture of a scar there are two very important factors to consider, first infection and second the method of suture. Infection with collections of pus along the suture line results in failure of muscle regeneration and we get a thin fibrous scar in which there may be no muscle tissue between the endometrium and the peritoneum. Furthermore if the muscle fibres are not accurately approximated and there are collections of blood or serum in the wound we get a similar failure of muscle regeneration and consequently a weak scar. On the other hand perfect approximation plus absence of infection give a firm union which is so filled with regenerated muscle fibres that rupture at such a point is next to impossible. However, we can never be sure that infection is absent so that while we may reduce the number of ruptured scars by careful attention or technic, we will be faced with the specter of a possible break in our previously Caesarionized uteri.

Failure of muscle regeneration makes the thin scar the ending point of numerous muscle fibres. When these contract as they do in labor these ends are all pulling away from their old point of union. In other parts of the uterus this is not the case because wherever a muscle fibre ends there is sufficient reinforcement by numerous other fibers which do not end. So as labor progresses the tension on the scar increases until it finally gives way.

The tendency toward thinning of the scar is further increased if it is retroplacental. In 33 of 50 cases quoted by Holland the placenta was situated over the scar. This is due to the fact that the retroplacental portion of the uterus hypertrophies more than the rest of the organ and scar tissue has little or not capacity for hypertrophy. The result is a further thinning and very early separation of the placenta at this point which increases the tendency to tear. Also when the placenta is over the scar there is an infiltration of syncitial tissue and decidual cells which have practically no tensile strength and consequently we have another factor in weakening the wall at this point.

In cases where there is no scar in the uterus we will often find areas of degeneration or necrosis possibly secondary to advancing age or multiparity or both. In others a fibrosis of the uterus has been reported, undoubtedly secondary to a chronic metritis, such as we have evidence of in our case. When the rupture usually occurs over the placental site and in addition to the microscopical evidence of degenerated muscle fibers and small round celled infiltrations we have an infiltration of the muscle with syncytial and decidual cells.

The symptoms of rupture of the uterus vary considerably, depending upon its location and the size of blood vessels that are torn. They are less urgent in those cases where there has been a previous tear because of the pancity of blood vessels. This applies to the previous Caesarianized cases and also to those which have been reported where there was a repeated rupture of the uterus, or where a previously severely lacerated cervix was converted into a rupture at a subsequent labor. In some of these cases the fetus is not extruded from the uterus or any part of it escapes and here again the symptoms are less dynamic. Where the rupture is into the broad ligament the symptoms may be masked because the loss of blood is not very marked. This is likewise the case when the rupture is associated with delivery through the normal passage such as might follow a version and extraction. Here the symptoms are commensurate with the loss of blood, but we must bear in mind that the hemorrhage may be intraperitoneal and consequently concealed. Before the rupture occurs there are usually some very definite premonitory signs. The patient is anxious and restless complaining of constant paint over the lower abdomen. The pulse is increased and occasionally there is a slight elevation of temperature. At the time of rupture there is a severe sharp tearing pain and a sensation of something giving way. The pain ceases, the patient becomes pale and breaks out with a cold sweat, the respiration are shallow and rapid and the pulse goes up. There are violent movements due to axphyxia and then all motion ceases. There may or may not be bleeding from the vagina, so this should not be used as a criterion of the amount of blood lost. If large blood vessels are torn the patient may die of hemorrhage unless operated upon. Usually, however, the drop in blood pressure which is coincident with the hemorrhage allows the blood to coagulate and checks the bleeding before it is fatal. In our first case over two hours elapsed from the time of rupture until the operation was performed, and during this time she was moved from her home to the hospital. In the second case it was at least eight hours before the patient was operated upon. Consequently the hemorrhage must have been spontaneously arrested before treatment was instituted. In our last case the patient's condition never warranted any operative interference.

Examination of the patient with threatened rupture will often reveal the main etiological factor such as a neglected transverse presentatoin or a contracted pelvis. The uterus is tens and tetanic and we can often feel a rige across

the lower part of the uterus, the contraction ring of Bandl, which marks the line of separation between the lower uterine segment and the fundus. Rectal or vaginal examination reveals a presenting part more or less definitely felt depending on the presentation and degree of engagement.

The picture is almost as variable after the accident as it was before. Our first patient was in a state of collapse, without pain and only slight external bleeding. The fetus in both instances could be easily outlined close to the abdominal wall while in the lower quadrant on the opposite side was the firmly contracted uterus. Vaginal examination revealed a collapsed soft cervix and no presenting part in the pelvis. In some instances the tear can be felt from below and occasionally omentum or intestines are found prolapsed in the vagina. If internal hemorrhage is severe we may get shifting dullness in the flanks. In the less dynamic cases we get variations from this classical picture.

In the third case we had the transverse presentation in which a prolapsed scar midline disappeared followed by the birth of the head, probably at this moment tore through a weakened lower uterine segment. Patient went into shock and never rallied.

The most difficult cases to diagnose are those which complicate the various obstetrical operations. We are all familiar with the shock that occasionally follows a forceps delivery or a version, and occasionally this condition simulates rupture of the uterus. This point is differential diagnosis will only come if these deliveries have been effected from below. But in such cases if the patient goes into shock it is very important to know just what we are dealing with. The amount of external hemorrhage may be large or small in either shock or rupture. In rupture we may get shifting dullness in the flanks but a positive diagnosis may not be made unless we explore the interior of the uterus with the hand.

Abruptio placentae is differentiated by the usual coincident occurrence of nephritis and hypertension and by the tense board like uterus. We must bear in mind that we may have both placental separation and uterine rupture in the same case.

Apart from the rarity of full term ruptured ectopic pregnancy we have the history of the patient and the palpation of a tear in the large pregnant uterus while in ectopic the cervix is closed and the uterus, if it can be distinguished, is quite small. A placenta previa with brisk hemorrhage may be associated with collapse but the examination quickly reveals a fetus in the uterus and the placenta can be felt over the os.

The prognosis depends on whether the rupture is complete or incomplete and whether it occurred at the site of an old avascular scar or through the uterine musculature. In incomplete rupture with delivery from below both mother and child may often be saved, provided hemorrhage is controlled. In complete rupture the child is rarely saved unless operation is performed immediately. In rupture of old scars when the fetus is not expelled from the uterus we may also obtain a living child. The maternal prognosis is better especially in the incomplete ruptures. The cause of death in the fatal cases is hemorrhage and infection, some mothers dying before operation from loss of blood and shock. Many of our cases have been manipulated from below and despite prompt and efficient surgical intervention they die of peritonitis. Wolff reports a fetal mortality of 60 per cent and a maternal mortality of 26 per cent in rupture of the uterus following Caesarian section as contrasted with a 47 per cent maternal mortality, in ruptured uteri from other causes, thus clearly illustrated the more serious nature of a tear through unscarred muscle.

In discussing the treatment of this condition we must bear in mind the pathology. In complete rupture with the fetus and placenta in the abdominal cavity immediate laparotomy is indicated. It is possible in many instances to suture the uterus and save the organ but this is not to be recommended for two reasons. In the first place such a uterus is probably infected and merely increases chances for developing peritonitis. In the second place its value is questionable even if the patient does recover. Snow reports a case where the uterus ruptured on three different occasions in the same patient. Our first case showed evidences of infection in the uterine musculature, consequently we believe that the operation of choice in these cases is hysterectomy. Removal of the uterus effectively checks hemorrhage, removes a possible focus of infection and sterilizes a patient in whom subsequent pregnancy would be dangerous.

In incomplete rupture we must be guided by conditions. If there is extensive tearing into the broad ligament with severe hemorrhage it can be controlled best by hysterectomy, although it may be possible to pack the cavity and check the hemorrhage in this manner. Many of the milder forms of incomplete rupture undoubtedly take care of themselves. Without question some of the cases of unexplained death after delivery are due to unrecognized uterine rupture. Such patients will occasionally fail to react to ordinary stimulants and will die before we can get them into shape to stand a severe abdominal operation.

In 1910 Boreo reported a conservative method of treating the cases where the uterine contents

were delivered from below. He advised clamping the edges of the tear with forceps and overlapping them, followed by packing the uterus with gauze and removal of the clamp in three days. Intra-uterine suture of the rent has also been used with success but it is technically a very difficult task and is not a method for general use. For the reasons stated above we believe that this is not a method which will meet with general approval.

But important as it is for the specialist to be fully conversant with and capable of utilizing all the methods of treatment, it is far more important for the general practitioner to acquaint himself with the methods of preventing this condition. Adequate prenatal care with pelvic measurements is essential as well as careful examination of the patient at time of delivery and an accurate diagnosis of position. We must use pituitrin carefully in small doses, and only when the cervix is fully dilated with a normal presentation and an adequate outlet. This valuable drug has fallen into disrepute due to indiscriminate use. Another point which must not be overlooked in the prevention of rupture is undue delay in delivery. If the cervix is completely dilated with no advance despite strong pains there is an obstruction to delivery and an accurate examination must be made to determine the cause of this delay. The exhibition of pituitrin under such conditions is deplorable.

Patients who have been previously subjected to Caesarian section should be carefully sutured. If the indication for the first section is a permanent condition there should be no thought of another test of labor. In case the pelvis is normal and the previous indication is no longer present there are several things to be considered before allowing the patient to attempt labor. If the convalescence from the previous section was afbile we probably are dealing with a firm scar, provided the uterus has been properly sutured. In such cases as this we feel that the chance of rupture while undoubtedly present is fairly remote and one would be justified in risking such a labor when the patient is in a hospital where all facilities are at hand for an immediate laparotomy if necessary. Within the past two years we have examined the wounds of ten previously sectioned uteri and in all but one case the scar was so well healed that it was recognized with difficulty. The one weak scar was in a patient who had a stormy febril convalescence.

In conclusion then we may say that rupture of the uterus or vagina is usually a preventable condition and adequate obstetrical care will avoid many of these deplorable accidents. The mortality is exceedingly high even with the best of care and good results in treating this condition are due to absence of infection as well as prompt surgery.

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ENDOCRINE AMMENORRHEA*

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It is rational to presume that the majority of ammenorrheas have an endocrine basis. While the ovaries play the chief role in the production of the menstrual cycle, they are in turn dependent to a definite extent upon the normality of the other interrelated glands, principally the anterior lobe of the pituitary, the thyroid, and to a lesser degree, if any, upon the adrenal cortex and pineal. Therefore, the hormonic imbalance producing an ammenorrhea may be either primary, i. e., dependent on a pure hypogonadism; or, secondary, i. e. a primary insufficiency of the interrelated glands and consequent hypofunction of the ovaries.

At present hormonic symptoms have been developed which enable us with very little difficulty to make specific endocrine diagnoses. These symptoms involve principally, body structural changes, metabolic disturbances and neighboring signs, as outlined in a previous paper. Hence to logically classify the end results of clinical investigation and so that our therapy be specific we must determine from our clinical survey, including history, physical and laboratory findings, what gland is at that time at fault. While it is true that single gland dyscrasias are rare, a correlation of the above finding will nearly always demonstrate one gland as the outstanding cause of the general incretory dyscrasia and treatment is directed principally toward this gland. At present specific therapy is impossible, except in a few instances, and rational treatment must be directed toward those glands which have a synergistic action.

The recent work of Allan, Doisey and Pratt may soon evolve a practical and specific ovarian hormone. They have evidently succeeded in animal experimentation in producing the estrual cycle and characteristic hystological signs in the genital organs of the castrated rat and this treatment, consisting of injections of extract is at present being applied in clinical experi-

mentation. Smith and Evans in their work on the anterior lobe ,by an injection of their extract into the peritoneal cavity of animals also have produced the estrual cycle and it is my understanding that it, too, is being used under clinically controlled cases.

The future for specific endocrine therapy is, indeed, bright if they succeed in isolating an active ovarian and anterior lobe hormone and it will supplement our armementarium, along with that of thyroxin and insulin. But, at present, as stated above, glands or extracts with synergistic actions is the method of choice rather than inert specific extracts.

CASE REPORTS

Case 1—Miss M. N., Age 33.

Primary ovarian insufficiency and thyroid extract intoxication.

Chief Complaint—Fatiguability. Scant menstrual flow.

History—Former periods four to five days, four napkins daily, now uses but one. Fatiguability most pronounced following her period. Onset at 16. Never regular, had dysmenorrhea until operation performed four years ago. For past four years has been losing her hair which was thick and curly and full of lustre and is now thin, dry and straight. Headaches, occipital and basal, since onset of ammenorrhea. Palpitation since taking thyroid extract. Has taken five to six grains daily for three or four months and has become extremely nervous. This was done without the consent of her physician. Began to put on weight when her periods became scant. Previously weighed 125 pounds. In four years gained up to 162 pounds. Stated that most of her weight was mammary and trochanteric. Since taking thyroid has lost most of her weight in these regions. Present weight 137 pounds.

Family History—Mother and two maternal aunts went into menopause before the age of 40.

Physical Examination—Asthenic type, five foot five inches, disproportion between trunk and extremeties. Hair scant and dry. Mammae show signs of loss of weight. Finger nails brittle, break easily.

Treatment—Anterior lobe extract, ampoules one intramuscularly, three times a week. Ovarian substance ampoule one, three times a week. Ovarian substance grains three, four times daily. Her physician states that after four months treatment there is no change evidenced in the menstrual flow.

May 1923.

Case 2—Mrs. P., Age 26.

Thyropituitary insufficiency.

Chief Complaint—Ammenorrhea.

History—Onset at age of 14. Regular, 28-day type. Duration three or four days. Four years ago the flow became scanty and irregular, three to six months intervals. Coincident with ammenorrhea obesity developed. Weight at 18 years was 115 pounds. Between the ages of 20 and 21 gained 50 pounds.

Physical Examination—Measurements normal. Moderate scleroderma. Pituitary type of obesity, pelvic and pectoral girdle obesity marked, mammary not marked. Otherwise negative.

Treatment—Patient was treated at intervals for the past three years. While on substitutional therapy with pituitary body and thyroid and pituitrin, intramuscularly, her periods promptly returned with regularity. When treatment is withdrawn the ammenorrhea and obesity return.

November 1924.

Case 3—Mrs., Age 28.

Primary Ovarian Insufficiency. With obesity.

Chief Complaint—Complete ammenorrhea, 11 months.

History—Onset at 14. Regular until 11 months ago. No periods since. Previously 21-day type interval with seven-day duration, moderately profuse. One child, nine years old. Ectopic 1918. June 30, 1925 was operated for acute appendicitis. Examination at that time showed both tubes and one ovary had been removed. In 1918 had pneumonia complicated with empyema. Since then three rib resections have been done. Following a closure of the chest in 1923 the patient began to take on weight, from 140 to 185 and ammenorrhea began.

Physical Examination—Measurements are definitely eunochoidal. Span 68. V to S 29½. S to S 34. Marked trochanteric and mammary obesity. Otherwise negative.

Treatment—Anterior lobe and ovarian substance, ampoule one, each intramuscularly, three times a week. Followed in one month by three-day period. This patient has had regular periods for one year with the exception of an interval of two months when treatment was stopped. After treatment was again instituted, periods returned.

December 1925.

Case 4—Miss E. H., Age 15.

Subthyroidism.

Chief Complaint—Irregular periods, enlarged neck, Skin condition for six months which cleared up with treatment. Onset at 14. Period in December none until May then August. First period lasted three days, others one-half day and scant.

History—Normal birth, eight pounds, fleshy and fat. Walked at 18 months, talked at 12 months. Began to lose weight after 18 months old. Not strong after weaning, was bottle fed baby. Last few years fairly healthy.

Family History—Mother is anterior lobe type, father probably pituitary type.

Physical Examination—Weight 100. Height 59½ in. S to S 30, V to S 29½, Span 28½. Skin dry and scaly, especially of the legs. Subthyroid facies, lips prominent, fingers short and blunt, small feet and bowing of elgs. External genitalia well developed. Axillary and public hair well developed also hair growth marked on forearms, upper lip, less on lower limbs. mammae well developed. Thyroid is diffusely enlarged especially isthmus and right lateral lobe. Basal metabolism rate minus 23%.

Treatment—Thyroid dessicated, as high as six grains a day. Ovarian substance and anterior lobe, intramuscularly. After second month of treatment patient gained weight with a return of regular menstrual flow which has continued. Thyroid and ovarian therapy by mouth are continued.

December 1925.

Case 5—Miss G., Age 32. Primary Ovarian Insufficiency.

Chief Complaint—Scant and irregular mentrual flow Gastro intestinal disturbance and pain in right lower quadrant.

History—Periods always scant. Onset at 16. Duration one-half day, barely enough to stain a napkin.

Physical Examination—Eunuchoidal type. No obesity. Tenderness in right lower quadrant (patient operated for appendicitis with relief of all gastro-intestinal symptoms, at that time uterus and adnexa were examined. The uterus was of infantile type, the ovaries apparently normal.)

Treatment—Ovarian extract and anterior lobe, both by mouth, intramuscularly, and intravenously. Was

given for four months with no change in the menstrual flow.

January 1926.

Case 6—Mrs. P., Age 28.

Primary Ovarian Insufficiency. No obesity.

Chief Complaint—Inability to become pregnant. Premenstrual backache and headache. Periods lasting one day, and scant. Onset at 16, regular, 28-day type. Married four years. No pregnancies.

Physical Examination—Eunuchoidal type. -No obesity. Slight fullness of the thyroid, small nodule in isthmus.

Referred her to Dr. Henderson to determine patency of tubes. Tubes found patent, uterus and adnexa normal.

Treatment—Ovarian extract and anterior lobe by mouth and intramuscularly. First period, entirely free of headache and backbone. No increase in flow. Second and third periods slight increase in flow, lasted two days. No treatment for one month and flow is again scant and subjective symptoms returned.

The secondary type of ammenorrhea at this writing presents the best prognosis, especially the so-called thyro pituitary type. Thyroid extract alone will rarely produce results, but when combined with pituitary extract results are usually better. This type generally has an associated so-called pituitary or thyroid obesity.

In the so-called primary ovarian insufficiency, treatment with either the present ovarian products alone, or, combined with synergistic glands, little or no results are secured as far as the menses are concerned, but often associated subjective symptoms are relieved by therapy. In primary ovarian insufficiency associated with characteristic trochanteric and mammary obesity believe that in a certain percentage ammenorrhea can be corrected, because, in my opinion the secondary metabolic disturbances of the ovary as evidenced by obesity can be corrected by diet and the ovaries activated by thyroid, and anterior lobe extract. With the disappearance of the ovarian obesity, frequently, the menses are reestablished.

PUBLIC HEALTH ACTIVITIES

Edited By

MICHIGAN DEPARTMENT OF HEALTH

THE TIME FACTOR IN BIOLOGIC PRODUCTS

It is not generally known that *time* is a most important factor in the preparation of biologic products. The idea that any given product may be prepared in the laboratory in a relatively short time and put, with due precautions, into suitable containers ready for use is prevalent. The ordinary idea that might be expressed is that products dependent on bacterial growth would require some four or five days to prepare, perhaps, and that serums prepared by animal inoculation might take even as long as five or six weeks.

But the results secured by such casual speculation do not at all agree with the facts. Let us bring out the point by using a specific example,—diphtheria antitoxin. Off-hand calculation might give us something like this: Made by injection of toxin into horses; hence a week to make toxin, plus six weeks for immunizing the horse, plus a week to test and fill the product,—total eight weeks. And some, not stopping to calculate at all, might even be surprised at this period of two months.

Now let us consider the facts. To produce antitoxin one must first have toxin. Diphtheria toxin is not a product which may be prepared by following a receipe from a book It requires a method which will give reasonably consistent results in the hands of the user, and this method may take months to acquire. Even then there may be failures, or perhaps a series of failures. Toxin has been made for 30 years, and yet it is not known just why it may be potent one time and not the next, or potent in the hands of one man, and not potent in the hands of another presumably following exactly the methods of the first. Because of the uncertainty, each lot of toxin must be relatively small,—one cannot prepare it in hundred gallon lots like vinegar or sauerkraut or such fermentation products. It may take six months to acquire a method, and another six to put in stock a sufficient amount to be worth while, a safe minimum, and also to make sufficiently sure of one's method to be reasonably sure of continuous maintenance of supply. Let us allow enough good fortune so that at the end of a year we have a supply of toxin and are producing it successfully.

But toxin having a certain potency when made does not retain that potency. Normally there is a deterioration which is at first rapid. Hence the product must be given time to stabilize, perhaps six months. At the end of the year supposely we have some toxin which is six months old, but very little. Hence it would be unreasonable to start too fast, for should one fall short of good stable toxin one is completely and effectually blocked. An animal half immunized will not stay half immunized while one takes time out to prepare to finish the process. Three months beyond the year is not enough to

put one on safe ground, but let us say three months for argument's sake.

Thus far we have consumed fifteen months. Then we start animal immunization. With good luck we may bleed for plasma containing antitoxin two months later,—seventeen months. One cannot bleed too much at a time without injury to the animal. Hence one continues bleeding and immunizing periodically before one has any quantity of plasma,—another two months,—total thus far, nineteen months. But the antitoxin, as the toxin, must age to become stable, requiring another six months,—twenty-five. Then it must be concentrated and the undesirable proteins removed so far as possible, a two weeks' process. Then it must be tested for potency,—another week. It must be filled into syringes, and tested for sterility, adding another week,—a grand total of at least twenty-six months, or *more than two years.*

And even so, all stages of procedure have been assigned a minimum rather than even a normal allotment of time. In other words, the first steps in the production of a syringe of antitoxin used in October, 1926, may have been taken as long ago as the summer of 1922, and must have been taken at least as long ago as the summer of 1924. And the next presidential campaign will be over before the antitoxin, the first steps in the production of which are now being taken, is used.

Similarly, Schick test material requires toxin, and toxin-antitoxin mixture requires both toxin and antitoxin. Furthermore, toxin-antitoxin mixture requires thirty-five days to test for potency, both where made and in Washington, where check tests are made, not to mention the variable time consumed in making "test mixtures," or small lots of varying proportions of toxin and antitoxin to determine the proper proportions to use, which may be thus and so one month, and different the next; for no biologic product is perfectly stable. Other products are similarly dependent on *time,* including scarlet fever products at which wonder has been expressed as to why such have not been put out by the Department.

Thus one runs continual risks of accidents which will upset months of work. One must know months in advance, when possible, about unusual demands for any product,—for all carry "expiration dates" beyond which they must be carefully rechecked for potency or discarded. Ideally the supply should exactly meet the demand. For therapeutic products, estimates must be based on (1) previous demand, and (2) epidemiologic data. For other products, such as toxin-antitoxin mixture or Schick test material, one can estimate somewhat on the above points, but immunizing campaigns can to some extent be foreseen, and the earlier notice is given the better.—M. S. M.

DIPHTHERIA OUTBREAK IN ROYAL OAK TOWNSHIP

At 4:00 a. m. Sunday, June 6, the State Department of Health was notified that there was a serious outbreak of diphtheria in Royal Oak township, Oakland county. A request was made for immediate assistance as the supply of diphtheria antitoxin had been depleted and the people were panic stricken.

Antitoxin was dispatched from Lansing by a state motorcycle officer who arrived in Royal Oak by 9:00 a. m. A medical inspector from the Michigan Department of Health arrived on the scene the same day and took charge of the situation.

Two cases of malignant laryngeal diphtheria had occurred, one a school girl of 8 years, the other a preschool child of 6 years. Neither of these children had ever had toxin-antitoxin; however, it is to be noted that the two sisters of the preschool child had had toxin-antitoxin about five months before and neither of these girls developed diphtheria. Of the two cases, both died within thirty-six hours of the onset of noticeable symptoms and within four hours from the time they were first seen by a physician. The development of symptoms was so rapid and severe that antitoxin administration proved of no avail. With rigid quarantine measures and the administration of over 700,000 units of antitoxin to contacts, the outbreak was stopped without the development of a further case.

The probable source of infection in one case, Edna W., is interesting from an epidemiological standpoint. A girl, Carol C., age 8, was the only contact of Edna W., from whom a positive virulent diphtheria culture was obtained. Carol and Edna were classmates and sat near each other in the schoolroom. Carol had never had diphtheria but there was a history of recent infection in her family. Her brother, Merl, age 3, had had a double mastoid operation about eight weeks previously. Two weeks after returning home from the hospital, Merl's brother, Joseph, age 6, developed diphtheria. Investigation of these cases developed the fact that Merl's ears were still discharging pus, which on culture yielded a diphtheria-like organism which was, however, nonvirulent. Except in this family, no other cases of diphtheria have occurred in this neighborhood for several months.—P. F. O.

FACTS AND FADS ABOUT DENTISTRY AND HEALTH

We are hearing a great deal today about teeth in relation to health. What everyone

wants to know is: How much of it is fad and how much fact? We all know that only a few years ago, even in most serious diseases, the physician looked at the tongue but ignored the teeth even though they might be reeking with filth and infection. Today he may refer the patient to the dentist even in the most minor ailments, though the mouth and teeth look reasonably good. Why the change, and is it just a fad, or is it based on reason?

We know also that the treatment of disease has had much in it that was whimsical and superstitious in the days gone by, and that even in our boasted scientific age we are not free by any means from such ideas—as the blazing signs and alluring promises so evident today well testify. It is also well known that the practice of the healing art is becoming more and more intelligent and scientific. Much investigation has been and is being given to the cause of disease and the great watchword in health programs today is prevention.

It is in this realm of causes of disease and prevention that teeth today play so important a part. When it is discovered that rheumatism, neuritis, heart disease, kidney disease, etc., are often caused by absorption of infection from other portions of the body, it was recognized that infections in the mouth could not be ignored.

Now what are the facts concerning diseased mouth conditions? Examination of all classes of people show that it is tremendously common. Examination of school children usually shows 85 to 90 per cent with diseased teeth and 25 per cent with definite infection draining down the throat 24 hours of the day. Children in the kindergarten 4 or 5 years of age already frequently have very bad mouth conditions.

Examination of all the boy scout troops in a city of 100,000 showed 90 per cent with decayed permanent teeth, and some of these boys were sons of physicians and dentists.

These are facts and can be duplicated almost anywhere if a careful school examination is made, unless there has been an efficient dental program in force for some time. It involves no stretch of the imagination to believe that such conditions are not healthful. Demonstrations in many different places independent of each other have shown beyond a doubt that bad mouth conditions in school children lower the resistance of the child and make it more susceptible to any disease, cause absences from school, poor school work, and often, retardation in grades, in addition to frequently causing serious disease from the infection absorbed.

Superintendent Sutton's experiments in the Atlanta, Georgia, schools are a notable example and come from a school man and not a dentist. The draft board examinations gave ample evidence of bad mouth conditions among adults.

These are the facts,—what are some of the fads?

Some dentists and physicians, seeing the splendid cures effected upon the removal of diseased teeth, have made of this a fad and advised removal without proper diagnosis. There can be no doubt that many teeth have been sacrificed needlessly. In this connection we have the X-ray faddist who diagnoses the presence and extent of dental infection from radiograms alone and glibly consigns certain teeth to the forceps from evidence which may be entirely misleading. On the other hand, some tooth conditions affecting health seriously make no showing on a dental film. It is certainly true that dental diagnosis can not be made from X-ray alone.

Another fad is the great exploitation of all kinds of tooth pastes, powders, mouth washes and pyorrhea cures, each one promising to prevent decay or cure pyorrhea. Most of them are harmless, although the tooth whiteners are dangerous and may ruin good teeth, but they all have little virtue in proportion to the wonderful claims made for them.

Another fad is the slogan, "A clean tooth never decays." This has led to undue emphasis on the tooth brush, powders, pastes, etc., and the cleaning of teeth rather than early filling, as a preventive of decay. It has produced many times a false security and has had the leading place in too many school programs. Cleaning teeth has value and should by all means be encouraged, but unfortunately, it can only prevent decay to a very limited extent. The important preventive of decay is early filling, and nothing we know of today can take its place.

The message we must get across to parents, prospective mothers, teachers, nurses and all health workers is this: Decayed teeth lead to infection and infection is dangerous to health. It is just as dangerous in baby teeth as in permanent ones. Tooth decay and infection are tremendously prevalent. The only known preventive is early filling and this is most successful and economical when the tiny cavity is filled before it can be seen except by a careful examination with mouth mirror and probe. Hence the importance of having the teeth examined by a dentist just as soon as erupted and, if necessary, filled. This means 2 to 3 years of age for baby teeth and starting at 6 years for permanent teeth.

The most misunderstood factor in dental care today, and the most important, is that about 90 per cent of the molar teeth erupt with cavities in them. This is not saying that they come through decayed, but that they come through with tiny holes in them, and decay always starts

were debris can lodge. The tooth brush cannot clean out these tiny pits and fissures. Decay often progresses very rapidly when once the teeth come through the gums and, on this account, they are frequently decayed to the dangerous stage before it is discovered.

The teeth may be of excellent quality, but Nature didn't quite fuse the enamel junctions and so they come through with pit and fissure cavities, too small to see without examination with mouth mirror and probe, but not too small for decay to start and ruin the teeth unless filled.

We do not believe it possible to stress this too strongly. While we hope our research departments in dentistry and medicine will find out what causes these tiny pit and fissure defects, and how to prevent them, they have not done that yet and until they do, the practical thing is to prevent decay and infection by early filling. It is the only method we are sure of today.

We also know the importance of diet and nutrition in producing and maintaining good teeth. Hence we should stress the importance of the diet of the pregnant woman, nursing mother and, thereafter, of the child, as a contributing factor.

Facts, as distinguished from fads, give the only sound basis for a mouth hygiene program.

—W. R. D.

September reports in the Bureau of Child Hygiene and Public Health Nursing show that 22 counties received some type of public health nursing service during the month.

The Supervisor of Midwives, Bertha Cooper, worked in Emmet, Cheboygan, Charlevoix, Antrim, Bay and Ogemaw counties.

Four nurses taught Little Mothers' League classes, Gertrude Linsell in Monroe County, Bertha Brown in Kalkaska and Missaukee, Martha Giltner in Sanilac and Catherine Eoll in Schoolcraft.

Women's classes in infant care were conducted in Chippewa County by Dr. Rhoda Hendrick and Mrs. Vera Smith. Annette Fox, Director of the Upper Peninsula Nursing District, worked in Mackinac, Chippewa, Kalkaska, and Missaukee counties, while Esther Nash, Supervisor of the Lower Peninsula Nursing District, visited Sanilac, Iosco, Otsego, Lenawee, Montmorency, Crawford, Roscommon, Missaukee and Clare counties.

Two nurses, Katherine Kreizenbeck in Newaygo County and Bertha Karkau in Osceola, reported on the demonstration prenatal programs in progress in those counties.

A total of 123 towns in 43 counties were visited by engineers from the Bureau of Engineering during September. Assistance given included investigation or consultation on public water supplies, sewerage or sewage disposal, stream pollution, general sanitation, roadside water supplies, railroad water supplies, and highway camps. Counties visited were in both upper and lower peninsulas.

PREVALENCE OF DISEASE

September Report
Cases Reported

	Aug. 1926	Sept. 1926	Sept. 1925	Average 5 years
Pneumonia	114	112	185	153
Tuberculosis	462	509	632	469
Typhoid Fever	75	129	153	191
Diphtheria	326	370	224	538
Whooping Cough	625	517	651	412
Scarlet Fever	273	321	353	496
Measles	231	78	71	105
Smallpox	40	12	17	45
Meningitis	9	6	9	9
Poliomyelitis	13	25	20	97
Syphilis	1,211	1,198	1,444	1,041
Gonorrhea	784	987	1,142	1,067
Chancroid	5	11	13	14

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health
September, 1926

	+	—	+—	Total
Throat Swabs for Diphtheria				901
Diagnosis	33	395		
Release	126	240		
Carrier	1	89		
Virulence Tests	8	9		
Throat Swabs for Hemolytic Streptococcus				330
Diagnosis	59	182		
Carrier	15	74		
Throat Swabs for Vincent's	22	404		426
Syphilis				5695
Kahn	949	4668	62	
Wassermann	4	9		
Darkfield	1	2		
Examination for Gonococci	238	1761		1999
B. Tuberculosis				1374
Sputum	505	855		
Animal Inoculations	3	11		
Typhoid				313
Feces	28	140		
Blood Cultures	6	45		
Urine		11		
Widal	20	63		
Dysentery				126
Intestinal Parasites				16
Transudates and Exudates				136
Blood Examinations (not classified)				543
Urine Examinations (not classified)				290
Water and Sewage Examinations				522
Milk Examinations				88
Toxicological Examinations				17
Autogenous Vaccines				6
Supplementary Examinations				195
Unclassified Examinations				707
Total for the Month				13594
Cumulative Total (fiscal year)				41556
Decrease over this month last year				6905
Outfits Mailed Out				1424
Media Manufactured, c.c.				1013517
Typhoid Vaccine Distributed, c.c.				2660
Diphtheria Antitoxin Distributed, units				23080000
Toxin Antitoxin Distributed, c.c.				31110
Silver Nitrate Ampules Distributed				5112
Examinations Made by Houghton Laboratory				1547
Examinations Made by Grand Rapids Laboratory				1711

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

PUBLICATION COMMITTEE
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B. F. GREEN.....Hillsdale
B. H. VAN LEUVEN.....Petoskey

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Grand Rapids, Michigan

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The Society does not hold itself responsible for opinions expressed in original papers, discussions, communications. or advertisements.

Subscription Price—$5 per year, in advance

NOVEMBER, 1926

Report Malpractice Threats Immediately to Doctor F. B. Tibbals, 1212 Kresge Building, Detroit, Michigan.

Editorials

POST-GRADUATE CLINIC, UNIVERSITY HOSPITAL NOV. 11-12-13

As announced in the October Journal, an intensive, Post Graduate Clinic, conducted under the auspices of the State Society will be held at the Univeristy Hospital, Ann Arbor, on November 11, 12 and 13th. The detailed program is attached hereto.

This clinic is for our members. There are no fees. The subjects discussed will be enhanced by clinical demonstrations. There will be no operative work. Practical methods and measures will be enlarged upon. In the two and a half days every moment of the program will be consumed with intensive presentation of the subjects announced. The field will be covered as fully and thoroughly as possible.

On the first evening there will be a dinner at the Michigan Union, followed by addresses by President Little, President Jackson, Dean Cabot and Regent Sawyer. On the second evening there will be addresses by Morris Fishbein, M. D., Editor of The Journal of the A. M. A.

Enrollment: In order to perfect clinical work we must know how many of our members will attend. The rule is established that no admissions to clinics without enrollment. A letter containing an enrollment card has been mailed to every member. Please return this card before Nov. 6th. On arrival in Ann Arbor an admission card will be given, to each member who has enrolled, at the main entrance of the University Hospital on the morning of November 11th.

Doctor, your State Society is providing this clinic for your benefit. The opportunity presents whereby you may receive instruction in practical methods revealing medical progress. You will be enlightened by much that will be of vast assistance in your daily work. Problems that have annoyed you will be clarified. Certainly you cannot afford to forgo this opportunity. Decide to attend. You will be well repaid.

PROGRAM

Thursday, November 11th

Welcome to Profession, Dr. Haynes.
9:00 a. m. Pre-Natal Clinic, Dr. Peterson.
9:30 a. m. Fractures, Dr. Badgley.
11:00 a. m. Neurological Diagnosis, Dr. Camp.
12:00 a. m. Surgical Technic, Dr. Bailey.

Methods of preparation of patients, preparation of the field and post-operative care and treatment.

12:30 Luncheon.
1:30 p. m. General Surgery, Dr. Eberbach.
2:30 p. m. Nephritis, Dr. Newburgh.
3:30 p. m. Genito-Urinary Surgery, Dr. Cabot.
4:30 p. m. Heart, Dr. Wilson.
7:00 p. m. Dinner at the Michigan Union.

This will be an informal dinner and not a banquet. Opportunity afforded for fraternal mingling. After the dinner there will be short addresses by Dr. Jackson, president state society; Dr. Sawyer, regent; Hugh Cabot, dean university; C. C. Little, president university.

Friday, November 12th

8:00 a. m. Practical discussion of Medical Procedures, with demonstration, Dr. Youmans.
9:00 a. m. Pediatric Clinic, Dr. Cowie.
10:00 a. m. Psychiatric Problems in Private Practice, Dr. Barrett.
10:30 a. m. Obstetrics and Gynecology, Dr. Peterson.
11:30 a. m. Upper Respiratory Infections and Pneumonia, Dr. Canfield and Dr. Bruce.

12:30 Luncheon.
1:30 p. m. Management of Eye Conditions in General Practice, Dr. Parker.
2:00 p. m. Acute Abdominal Conditions, Dr. Cabot.
3:00 p. m. Dermatological Clinic, Dr. Wile.
4:00 p. m. Management of Stomach and Gall-Bladder Disease, Dr. Field, Dr. Youmans, Dr. Hickey and Dr. Bruce.
7:30 p. m. (In Natural Science Auditorium), Dr. Fishbein.

This will be a general meeting to which there will be invited members of the resident staff of the hospital, nurses training school, students in the dental and medical departments of the university.

Dr. Morris Fishbein, editor of the Journal of the American Medical Association, and;

Invitation has been extended to an additional distinguished speaker.

Saturday, November 13th

8:00 a. m. Use of Ultra-Violet Rays and Diathermy in University Hospital, Dr. Pohle.
9:00 a. m. Head Injuries, Dr. Peet.
10:00 a. m. Clinical Pathological Conference, Dr. Warthin, department of medicine; Dr. Hickey, department of surgery.

All clinics will be held in the hospital amphitheatre except the Clinical Pathological conference, which will be held in the pathology amphitheatre.

Daily demonstrations in X-ray, pathological and clinical laboratories, out-patient departments and wards of the hospital.

HONORARY MEMBERS TO HOUSE OF DELEGATES

The House of Delegates elected the following as Honorary Members. They were duly notified by the appended letter. Acknowledgments will be found in "Among Our Letters" in this issue.

HONORARY MEMBERS—ELECTED 1926
106th Annual Meeting

Ottawa County
J. A. Mabbs, Flatiron Bldg.,
Muskegon, Mich.

Kent County
Ralph H. Spencer, 91 Monroe Ave.,
Grand Rapids, Mich.
D. Emmett Welsh, Powers. Theater Bldg.,
Grand Rapids, Mich.

Muskegon County
J. T. Cramer, 114 14th St.,
Muskegon, Mich.
Paul A. Quick, Landreth Bldg.,
Muskegon, Mich.
John A. Stoddard,
Muskegon, Mich.

Wexford County
David Ralston,
Cadillac, Mich.

Ingham County
F. A. Jones,
123 W. Allegan St.,
Lansing, Mich.
Robert E. Miller, Tussing Bldg.,
Lansing, Mich.

Wayne County
Eugene Smith, Professional Bldg.,
Detroit, Mich.
John E. Clark, Shurley Bldg.,
Detroit, Mich.

St. Clair County
G. S. Ney, Meisel Block,
Port Huron, Mich.
Charles B. Stockwell, 533 Water Street,
Port Huron, Mich.

Marquette County
T. A. Felch, Sellwood Block,
Ishpeming, Mich.

September 23, 1926.

Dear Doctor:

I have the distinct honor and personal privilege of advising you that at the 106th Annual Meeting of the Michigan State Medical Society, held in Lansing on September 14, 15 and 16th, the House of Delegates unanimously elected you as an Honorary Member of our State Society.

This honor and distinction comes to those beloved members of our profession who by reason of their years of professional life service and organizational affiliation have reflected credit not only to themselves but upon the Society.

It is therefore a distinct pleasure that I have of officially advising you of this action and to enroll you as one of the Honored Members of our Society.

Your sincerely,

Secretary-Editor.

GO TO IT WAYNE

Wayne County Medical Society just completed a successful year as evidenced by the committee reports published in a recent number of their Bulletin. These committee's dealt with smoke abatement, Membership Committee reporting a membership of 1,389 active resident and honorary members. The Public Education Committee that conducted 162 public meetings with an 29,000 lay attendance. A Program Committee that provides for all meetings. A history committee controlling a library of 22,192,219 volumes. An Ethics Committee called to function seven times. A Clinical Bulletin daily listing all hospital work that listed 30,386 operations during the year. A Cardiac Committee supervising special cardiac clinics. And a dozen or so other Committees, Council, Trustees, Editor, etc. All revealing progress and sustained activity that is commendable.

But now comes the following announcement that bids well the inauguration of a new era and new enthusiasm:

NEW SOCIETY HEADQUARTERS

As was announced last week, the Wayne County Medical Society is to have new quarters, which will be in the new Maccabees Building on Woodward at Putnam. It is intended that the move be made about January first. The facilities to be afforded by the new quarters should be of interest to all society members.

First in interest is the auditorium. We shall have access to a splendid first floor auditorium, seating about 800 people and equipped with a special ventilating system. The society quarters will be on the 11th floor where a fine office for the secretary will be attached to a capacious council room fitted out with luxurious furniture. Committee rooms are provided. One small dining room will be fitted up for card playing and a larger one will be available for general use. In addition to these two dining rooms the society will have two beautiful gardens situated over the tenth floor and adjacent to the other rooms. These roof gardens will overlook the library and art center.

The Detroit Physicians' Business Bureau will still have quarters with us. Coatrooms and washrooms will be attached to the suite. These quarters will be served by six high speed elevators and two freight elevators. The nature of the building is well known. Suffice it to say that it is considered to be Albert Kahn's masterpiece.

The new quarters will have the advantage of central location and good parking facilities. The expense of upkeep will be materially lower than at present. All service will be furnished by the building. The dining room service will be provided by a caterer; however,

a special kitchen which the society will equip will make it possible to operate independently of caterers if this appears desirable.

The trustees are to be congratulated of negotiating for these greatly improved quarters, and on managing so as to reduce society expense.

C. E. D.

That's why we say—Go To It Wayne! There is no reason why you shouldn't establish a world's pattern. We congratulate the men who heretofor have contributed their time and effort in making the Wayne Medical Society what it is today. They labored honestly and unselfishly and we know they will continue to carry on. The sad part is that they number but about 200 of the total membership of 1,389. There are 1,000 members who drifted along, reaping from the labors of these active men. If 500 of your drifters would quit being idle and lazy. If 500 of you would discontinue your retarding efforts that manifests itself by your very lasitude and so prevent greater momentum. If 500 of you knockers would become boosters—Well, if 500 of you Wayne men would join the boys who are working—the world would be yours. To you we say, the opportunity comfronts you—Get busy. Come forward and offer to help, do some of the work, lift some of the load and capitalize your opportunity. At least you can attend the meetings, and by your presence, occasional applause and boost, speed on the boys who are doing things. Certainly you don't need to have your head shoved into the trough before you appreciate how splendid and good the fodder is! Step up and help the officers and committees enrich it still greater.

Again we say, Go to It Wayne—assume and hold the position as an outstanding medical center of this world. It awaits you, you are on your way—there is no reason to fail if 750 are determined to work to that end during this society year. We bid you every success and are pulling strong for you. If the Journal can help, whisper it and we will go the limit—Go to It Wayne!

MINUTES OF THE OCTOBER MEETING OF THE EXECUTIVE COMMITTEE OF THE COUNCIL OF THE MICHIGAN STATE MEDICAL SOCIETY

The monthly meeting of the Executive Committee of the Council of the Michigan State Medical Society was held in Ann Arbor at the Michigan Union at 2 p. m., Tuesday, October 5th, 1926. There were six present: Chairman Stone, Drs. Bruce, LeFevre, Corbus, Warnshuis, Ex-president Darling and Executive-Secretary Smith.

No. 1. Dr. Olin, state health commissioner, appeared before the Executive Committee and discussed with the Executive Committee questions of administration and legislation relating to the health work of the state, requested the opinion and advice of the State Society in certain health activities. The Executive Committee conveyed to Dr. Olin their appeciation for taking up his plans with the State Society. Dr. Olin outlined to the Executive Committee the plan of securing desired health legislation and agreed to have it ready for discussion at the legislative meeting that is to be held in Lansing in connection with the Ingham County Medical Society.

The Executive Committee also expressed the opinion to the health commissioner that no attempt should be made during the coming legislature to secure the re-establishment of the 50c fee for reporting births.

On motion of Bruce and LeFevre, the Excutive Committee conveyed to Dr. Olin that it would gladly review evidence against doctors guilty of violations of health regulations and would aid him in securing cooperation from the violators of these regulations before prosecution was resorted to.

No. 2. Upon motion of Bruce, Corbus, the secretary was directed to proceed with the details connected with the administration of the $2,000 appropriation for activities to further conserve the health of the people of this state.

No. 3. That the committee to be appointed by the president in conformity with the resolution produced in the House of Delegates by W. J. Cassidy of Detroit should be instructed to consider the duties of the committee, to consist of "the establishing of a definition of the word charity as applied to medical and surgical service and also to survey the hospitals of this state in regard to the development of charity work or what is interpreted as charity work and to report to the House of Delegates a general plan that may be recommended to hospitals to govern them in the admission and care of people who are entitled to free medical service."

No. 4. On motion of LeFevre, Corbus, the secretary was directed to perfect the organizations in County Societies of the Red Cross Emergency teams and to keep a file of these organizations so that they may be available should an emergency ever arise.

No. 5. The secretary was instructed to arrange the program for the Ingham County Medical Society legislative meeting and to invite to that meeting representatives of the State Tuberculosis Association, State Board of Registration, Commission of Health, Michigan Hospital Association, and

our legislative committees of County Societies. He was also instructed to invite Dr. Woodward, Secretary of the Board of Legislation and Legal Medicine of the American Medical Association to be present and address the meeting.

No. 6. The Executive Committee discussed the plans for the Post-Graduate course in Ann Arbor on November 11th, 12th, 13th and was instructed to extend an invitation to Dr. Fishbein to address one of the evening sessions. It was the expression of the committee that President Jackson and Dean Cabot should preside at the several sessions and that a dinner should be arranged for on the first evening to which President Little should be invited.

No. 7. The secretary was instructed to convey to our representatives in congress the society's opinion upon the four bills now pending in congress.

No. 8. Upon motion of Corbus, Bruce, the secretary was instructed to secure the Beaumont tablet to be placed on the monument at Mackinaw Island in connection with our next annual meeting.

No. 9. Upon motion of LeFevre, Corbus, the secretary was instructed to send check for $100 to Dr. Darling to reimburse him for the contribution to the expense account of the Joint Committee on Public Health Education.

No. 10. Upon motion of LeFevre, Bruce, January 12th was selected as the tentative date for the midwinter session of the Council.

No. 11. The Executive Committee will hold its next meeting on the evening of November 10th at Ann Arbor unless the legislative meeting of the Ingham County Society occurs before that date.

No. 12. The Executive Committee reviewed the work that was being done in the secretary's office and informally discussed several proceedures of society activity.

No. 13. The Executive Committee adjourned at 5:30 p. m.

F. C. Warnshuis,
Secretary.

PRESIDENT'S APPOINTEES UPON COMMITTEES

Pesident J. B. Jackson, announces the following appointments for membership upon our Permanent and Special Committees:

Dr. J. H. Charters of Detroit is appointed to the Committee on Public Health, taking the place of Dr. Frank A. Kelly who becomes a member of the Committee on Legislation and Public Policy. Dr. C. S. Gorsline of Battle Creek is reappointed for a term of five years upon this committee, and Dr. R. C. Mahaney of Owosso becomes chairman of the committee.

The Committee on Legislation and Public Policy, the president appoints Dr. A. H. Haze of Lansing as chairman to fill the unexpired term of Dr. B. M. Davey, and Dr. Frank A. Kelly of Detroit is appointed as a new member of this committee, his term expiring in 1931.

The Tuberculosis Committee, the president reappoints Dr. B. A. Shepard of Kalamazoo as a member of this committee and designates him as chairman of the committee.

The Committee on Venereal Prophylaxis, the president appoints Dr. W. F. Martin of Battle Creek for a term of five years and Dr. Martin becomes chairman of this committee.

The Committee on Medical Education, the president appoints Dr. Hugh Cabot of Ann Arbor, his term expiring in 1931.

The Committee on Civic and Industrial Relations, the president reappoints Dr. C. D. Munro of Jackson, his term expiring in 1931.

The Joint Committee on Public Health Education, the president reappoints the secretary of the state society, Dr. F. C. Warnshuis, for a term of five years.

The Special Committee on Medical History of the State, created by action of the House of Delegates at the Lansing meeting is constituted by the president as follows: Dr. J. G. R. Manwaring, Chairman, Flint; Dr. J. H. Dempster, Detroit, and Dr. W. J. Kay, Lapeer.

The president has reappointed the entire personnel of the Committee on Nursing Education to serve for another year

In regard to the other special committees credited by the House of Delegates, one being for the organization of a Women's Auxillary and the other to investigate charity at the University Hospital, the president desires further time before announcing the personnel of these two committees.

As we have stated in previous editorials, from year to year, these committees are not mere ornaments of our organization. They are intended and must be active working groups, accomplishing the duties that are assigned to the committee and which formulate the basis for their existence. To that end do we once more urge, at the president's insistence, that the chairmen of these special committees begin now to become aggressively active in achieving the aims for which their respective committees are created.

A list of our standing committees and officers of our state organizations may be found each month published in the front advertising form of the Journal.

SAGINAW COUNTY MEDICAL SOCIETY INITIATES PLAN FOR PUBLIC HEALTH EDUCATION

The Saginaw County Medical Society through its committee on Public Health Education has developed a program of work which augurs well to lead the way for all other societies in the state. The plan has the approval of the entire membership of the society, the public, and the Saginaw News Courier.

The co-ordination of the medical profession, the public and publicity agencies signifies the entrance of a new era in the field of scientific medicine. Such accomplishment is possible in each county of Michigan.

The following news story and editorial from the Saginaw News Courier describe the plan of action and indicates the support of the public and the daily newspaper.

Education of the public in the value of preventive medicine—in the taking of precautions against the common communicable diseases most prevalent among children—is the object of a plan approved Wednesday evening by the Saginaw County Medical Society at October meeting.

The plan, including the placing in every physician's office of a supply of pamphlets dealing with the preventive measures advised by the medical profession, these pamphlets to be distributed to the general public, will be put into effect within a few days. as soon as the pamphlets have been printed.

The plan was adopted by the medical society, according to its officers, after a careful study of methods used in all the larger cities of the country. The pamphlet contains the medical professions recommendations regarding preventive measures to be used as safeguards against smallpox diphtheria, whooping cough, typhoid fever and scarlet fever.

BRAIN SURGEON SPEAKS

"This work," said one of the society's officials "is another phase of the effort the medical profession and health boards are making toward public health education."

A feature of the meeting was the technical lecture of Dr. Max Peet, professor of brain surgery at the University of Michigan, on "The Management of Skull Fractures." Miss Helen Albano, in charge of the city health department's pre-natal clinic, told the physicians how the work of the clinic is designed to coordinate with that of the physicians, and gave the doctors an outline of the plan for the clinic's activities.

The text of the pamphlet to be distributed through the physicians' offices follows:

"The medical profession is interested in preventive medicine. The following information regarding the control of contagious diseases has been very carefully assembled and the methods described below are those approved by our best medical authorities and recommended by the Boards of Health of all major cities. Any contra-indications to treatment will be best recognized by your family physician.

SMALLPOX

"Vaccination should be done as soon as possible after the child is one year of age. Complete immunity from a single vaccination may last a life time, but more often it may diminish so that vaccination should be repeated about every five years. Probably the best plan is for vaccination at the age of one year and repeated before the child enters the grades.

DIPHTHERIA

"Children should be protected against diphtheria after passing the age of one year. Susceptibility to diphtheria may be determined by the Schick Test. Under ordinary circumstances it has been found practical to omit this test for children under seven or eight years of age since the percentage of susceptibility at this age is so very high. Later in childhood as immunity develops the Schick test may be used. Toxin-antitoxin given at weekly intervals for three weeks usually protects a child indefinitely and probably for life. This protection is not immediate but develops gradually during the next few months. Six months after the toxin-antitoxin has been given the Schick test may be done in order to determine the status of immunity. If diphtheria develops in your home immediate immunity may be given your family by a single injection of anti-diphtheria serum which will protect your children for a period of about six weeks.

WHOOPING COUGH

"While the results are not uniform many physicians believe whooping cough vaccine to be of considerable value in both the prevention and treatment of this disease. It may be given to children exposed to the disease, and in cases of suspicious cough should be used promptly as the treatment is more satisfactory when used early in the disease. Since the use of the vaccine has become more general it has seemed that fewer pneumonias and other complications have been noted. The treatments are usually given on alternate days for three or more injections. The immunity produced is usually not of long duration.

TYPHOID FEVER

"This disease is largely one of youth and early adult life, being rarely seen in infancy and only occasionally during early childhood. There is little danger of this disease if the milk and water supplies are carefully watched. Immunization for typhoid and para typhoid may be accomplished by three injections of vaccine, given at weekly intervals. We especially recommend these treatments for children when cases of typhoid are present in the neighborhood or when a milk or water supply has been proven to be infected. It is very important that protection against typhoid be given to children before allowing them to enter summer camps or other activities where the food and water supplies may be in question, and in any case by the time of puberty. There is no contraindication to using the typhoid phophylaxis much earlier in childhood if it seems best.

SCARLET FEVER

"The Prophylactic treatment of scarlet fever is still in the experiment stage. We are not as yet recommending treatments, although it is probable that within a short time we will be able to safely recommenled a means of immunization. In case scarlet fever breaks out in your neighborhood or your children are directly exposed to the disease, there is considerable evidence to show that a single injection of anti-scarlet fever serum will protect them for period of from three to five weeks. Whether or not the serum should be used in your particular case should be left to your family physician.

SUGGESTIONS

"1. Two weeks after recovery from a contagious disease, take your child to your family physician for a careful examination, including analysis of the urine.

2. Before the beginning of a school year have your family physician give your children a complete physical examination, including analysis of the urine.

3. After being vaccinated, receiving toxin-antitoxin or other prophylactic treatments ask your doctor for a certificate showing dates of treatment."

PREVENTION OF DISEASE

Preventive medicine is making decided advance in this country and is now very generally practicle, at least in the larger cities, everywhere giving in results achieved proof of its value. It is a policy which is receiving a most commendable measure of support from the medical profession, and, designed as it is to add to public safety, it should unquestionably receive the earnest co-operation of all interested in safe-guarding health, which naturally ought to include the entire community.

This preventive medicine is specially valuable in safe-guarding children, who cannot do such things for themselves and who are dependent upon their elders, more particularly their parents, for suitable care along the lines indicated. Which gives added importance to the announcement made by The News Courier, of Thursday last, that the Saginaw County Medical Socity has approved a plan to educate the public in the value of effort to prevent the common communicable diseases most prevalent among children.

part of the plan is the distribution from offices of the physician members of the society of pamphlets dealing with preventive measures tested by practice and very wide experience, as well as indorsed by the profession. These pamphlets detail preventive measures that are not only advisable to be taken, but which have proved themselves. They are prepared with the utmost care, they will, if carefully read and as carefully followed, do a vast deal to forward public health education, and the methods described "are those approved by our best medical authorities and recommendel by the Boards of Health of all major cities."

Which should be guarantee enough of their merit. There is not the slightest doubt in the world that individual cases of these communicable diseases, as well as epidemics, can be prevented. Surely it must be admitted they should be. In any event, the Saginaw County Medical Society is performing valuable service in this departure. It should receive the co-operation of all interested in prevention of disease, and the hope may be expressed that we shall more and more take to preventive medicine, rather than passively waiting to fall ill and then asking to be cured.

As the public becomes educated in these matters prevention will surely come into its own, and that will be a mightly blessed day for the public health.

—Saginaw News Courier, October 17.

LICENSING HOSPITALS

During the past few years states and municipalities have made rapid progress in the enactment of legislation for the promotion of health conservation. Examples are found in the licensing of common carriers for the purpose of safe-guarding the lives of passengers; workmen's compensation acts for the protection of employes; setting standards and licensing all establishments manufacturing, preparing or serving food stuffs; compulsory examinations of food handlers; the promotion of local and state health department activities, etc.

From time to time the suggestion has been made that states should enact legislation providing for certain minimum standards of hospital service, including the keeping of patients records, surgical and medical practice, nursing technique and training, etc., and that the institutions should be licensed to operate only when these standards are complied with.

Owing to the absence of such control at the present time it is possible for any person to equip and open a building for the reception of patients wherein any type of treatment may be administered, including illegal abortions, operations performed by incompetent surgeons and any other service which may be detrimental to the well being of the patient.

It may be thought that public opinion would force the early closing of such institutions, but it is a fact that the public has, on the whole, a very meagre knowledge of the practice of medicine and little or no ability to choose between the competent and incompetent man for a particular service.

The objection has been advanced that medical service in hospitals, generally, is rendered only by physicians who are graduates of medical schools and licensed by the state to practice, and that this being the case, "why is there a need of placing any further license on the institutions in which such physicians practice." This objection might have had some weight 50 or 100 years ago but is an extremely weak one today, for the reason that the advances made in medical science during the past 75 years have been so rapid and have covered so many phases that it is now a well recognized fact that few, if any physicians, can keep intimately abreast with all these changes and remain proficient in all the various branches of surgery, medicine, obstetrics and the many subdivisions of these major groups.

The public have a right to expect that when sick they will receive the best of medical or surgical care and to a great degree rely upon the hospital to afford them this safeguard if only by the fact that the attending physician is permitted to render the particular service required in that hospital to which the patient is admitted.

Hospitals have this responsibility but in many instances fail in living up to it; and for many reasons, chief of which is the inability of Boards of Trustees to pass upon the qualifications of all practitioners in the various branches of medicine and surgery: the failure of the staff to submit honest and unbiased recommendations to the Boards of Trustees as to the ability of various doctors. even in those instances when they are in possession of facts regarding a lack of abil-

ity. Serious mistakes may therefore be made by the hospital in passing upon the qualifications of any particular man to perform major surgery or its specialized branches; his competency to take full charge of unusual and abnormal obstetrical patients; to treat obscure medical conditions, or even to give high-grade medical service for many of the more common diseases.

Without a definite standard throughout the state hospitals may lay themselves open to criticism in setting up individual standards and to perhaps more severe criticism for unjustly barring individual practitioners or permitting men, not competent, to care for patients in the institutions.

There are in the United States approximately 6,500 hospitals, ranging in capacity from five beds to one thousand beds, while in the state of Michigan, aside from mental and tuberculosis hospitals and other institutions such as Homes for Aged, Homes for Orphans, etc. that maintain a few hospital beds, there are about 12,000 beds in general hospitals caring for more than 35,000 or 9% of the state's population annually.

A careful and unbiased consideration of the facts here set forth would seem to indicate that the state would be not only well within its rights but negligent in its duty if it failed to take such measures as would add further safeguards for the conservation of the life and health of these citizens.

The licensing of hospitals is not a new thought in Michigan, where for a number of years all maternity hospitals or maternity departments of general hospitals have been so licensed and placed under the supervision of the State Department of Health.

Assisted by such organizations as the American College of Surgeons, The American Medical association, The American Hospital association, The National Nursing Organization and others competent to advise, certain minimum standards governing the practice of medicine in hospitals, the keeping of records, nursing technique, etc., might properly be set up and licenses granted to those institutions complying with these standards. Hospitals failing to comply should be closed or such assistance given by the state, if the institution shows a willingness to comply, as will help them to meet the standards.

Such action would greatly strengthen the efforts of all hospitals that are making an effort to raise the standards of service rendered. It would also give definite assurance to all who are in need of hospital care that their health is being as well safeguarded as in the purchase of food, working in a factory or traveling on the railroad and such legislation would be strictly in accordance with a sound policy of community health conservation.

S. G. Davidson.

SUPREME COURT UPHOLDS AMERICAN DRUGS

A decision of the highest importance to every physician, pharmacist, drug manufacturer and, in fact, every user of drugs in the United States was rendered by the supreme court of the United States on October 11, 1926, when this highest tribunal of the nation declared that the Chemical Foundation has been acting legally and properly in the purchase of the foreign drug and chemical patents during the war, and licensing American manufacturers to produce these essential substances in this country.

The sale of the German patents to the Chemical Foundation took place during President Wilson's administration and had, without doubt, a distinct influence upon the outcome of the war, because this transfer permitted American concerns to begin at once the production of various drugs and chemicals which had, theretofore, been made only in Germany, and whose importation ceased with our entry into the war.

President Harding, apparently laboring under some misapprehension as to the purposes and functions of the Chemical Foundation directed that suit be brought by the government to set aside the sale of these patents to the foundation.

The case was first tried in the federal district court of Wilmington, Del., and resulted, after weeks of evidence taking, in a finding against the government on all points.

The case was appealed to the circuit court, which upheld the decision of the district court in every particular.

A final appeal carried the question to the supreme court of the United States, where evidence was heard more than a year ago. The long delay in rendering a decision has afforded time for mature consideration. The court has decided unanimously that the sale to the Chemical Foundation was valid and legal and that the foundation has made no improper use of the powers which it thus acquired.

This decision is a momentous one for everyone who has anything to do with drugs and chemicals in any way whatever.

To the physician it means that he will have a steady and regular supply of reliable drugs, of American manufacturers, which can never again be upset or cut off by the vicissitudes of war. The same considera-

tions apply to the pharmacists. Among the vitally necessary drugs affected may be mentioned the arsphenamines, cinchopen, barbital, the flavines, procaine and a most of others.

To the drug manufacturer, who has invested thousands of dollars in apparatus for the manufacture of drugs and chemicals under the foundation's licenses, it means relief from a certain degree of anxiety (though the outcome of the case could scarcely have been in doubt) and a tremendous inspiration to further investigations looking to the production of more and better drugs and chemicals for America.

To the nation at large, it means that reliable medicines will continue to be sold at reasonable prices; and, more or less indirectly, that the dye industry of America which is now in a flourishing condition, thanks to the Chemical Foundation, will be available for government uses should we become involved in another war.

Nor are medicine and pharmacy the only lines of endeavor affected by this momentous decision. The steel and packing industry and many others will be vastly benefited by the freedom of chemical investigation and activity which is now assured them.

THE POTENCY DATE ON BIOLOGICS

Frequent inquiries are received at the Squibb Laboratories from pharmacists and physicians asking whether biologics, on which the potency date has passed, might not still be used with safety and confidence. This article is written with the idea of answering this same question as it arises in the minds of other representatives of the professions.

The potency date on Biologics is defined in the law, as that "date beyond which the contents (of the package) cannot be expected beyond reasonable doubt to yield their specific results." The Federal Regulations governing the fixing of the potency date on Biological Products have two main provisions. One pertains to those products which have a standard of potency, which can be used at any time to establish definitely the potency and the therapeutic worth of the product. The other provision relates to those products for which there is no standard of potency, or no means of determining quickly by laboratory methods the true therapeutic worth of the product.

In the first class we have the Antitoxins, such as Diphtheria and Tetanus, for which there are international standards of potency. For these products, the government regulations prescribe that for each 12 months' potency-period there shall be added to the contents of the package a definite excess number of units to compensate for the loss in potency on aging, even though not kept under proper conditions. For example, a package of 10,000 units of Diphtheria Antitoxin, having a potency period of two years, must contain, when finished, at least a 30 per cent excess in the number of units, or a total of 13,000 units instead of only 10,000 units as stated on the label.

It is at once apparent, therefore, that a package of Diphtheria Antitoxin may be used any time within the potency period stamped thereon, and that the person to whom it is administered will get at least the number of units stated on the label. Should the contents of the package be used after the potency date has expired, it will be found to be therapeutically effective, and at any time within a year thereafter probably will contain labeled potency.

All will recall that in the diphtheria epidemic at Nome, Alaska, the only Diphtheria Antitoxin that was at first available was outdated but that its use saved many lives.

There are potency standards for other products than Diphtheria and Tetanus Antitoxins, along which may be mentioned Typhoid Vaccine, Diphtheria Toxin for the Schick Test, Anti-Meningococcic Serum, Scarlet Fever Toxin and Scarlet Fever Antitoxin. However, the standards for all of these products, with the exception of the last, are used only for the purpose of insuring that when distributed the product will exert certain specific effects, as for example, that the Anti-Pneumococcic Serum will protect mice against a certain dose of a culture of neumococci, using a standard serum for comparison; or that Scarlet Fever Toxin for the Dick Test will cause a positive skin test in a person not immune to Scarlet Fever.

Usually but little excess volume is put into the containers of these last-mentioned products, for the reason that the methods of standardization do not permit of exact quantitative measurement.

These products, therefore, will show a gradual decrease in potency on aging but this decrease will be much less when the products are kept properly refrigerated. Most of them may be used after the potency date has expired, if due allowance is made in the dosage for the decrease that occurs from aging. No exact information is available, however, as to how much this loss of potency is for each product.

Consequently, for those products for which no standards of potency have been established, the government has fixed a

definite potency period. These products, which include the various Bacterial Vaccines, except Typhoid, Anti-Streptococcic Serum, Leucocyte Extract, Normal Horse Serum and similar preparations, probably still are therapeutically active after the potency date has been reached, if they are used in excess of the original dosage.

There is no potency standard for Smallpox Vaccine, except that it must produce a good "take." Refrigeration is of the greatest importance to maintain the potency of this product. If kept at temperatures above 50° F., the Vaccine rapidly loses in potency. Smallpox Vaccine should be kept, whenever possible, in a tin box in direct contact with the ice.

Rabies Vaccine, Semple modification, being a skilled virus, is in the same class as other products for which there is no potency standard. Rabies Vaccine, Pasteur, however, has a short potency period and, except for the first seven doses, is only shipped from the laboratory for immediate use.

It will be apparent from this summary of the use of the potency date on Biologics that the government regulations have fixed the potency date for various products to insure "beyond reasonable doubt" the therapeutic worth of those products any time prior to that date. It is also clear that the Antitoxins and most of the other Biological Products may be used after that time in cases of emergency, if proper allowance is made by increasing the dosage.

All will realize the importance of constant attention to stocks of Biologics, always making sure that those with the shortest potency periods are used first.

TREASURER

On October 15th, Dr. D. Emmett Welsh tendered his resignation as treasurer of our society. The resignation was accepted by President Jackson. The president has appointed Dr. John R. Rogers of Grand Rapids to the office of treasurer.

It is but proper that the thanks of the society be tendered to Dr. Welsh who has been faithful in service for a period of 15 years.

I WANT TO KNOW

There are times when you want to know something quickly. Just to help you when you do, you will find the following will answer many of your queries:

The Journal: (Each issue, ad. section).

1. List of State Officers, Councilors, Committees.
2. List of County Societies with names of President and Secretary.
3. Advertisements of firms of national repute selling standard equipment, drugs and specialties.
4. Dates of local, state and national meetings, and important medical events.

Directory of the A. M. A.:

1. Alphabetical list of all physicians.
2. Medical schools.
3. All hospitals.
4. Medical laws of all states.
5. Medical boards of all states.
6. Medical publications.
7. Medical societies and associations.
8. Government services.
9. And about everything else medical about members and institutions.

Your Journal and the Directory of the A. M. A. will answer the majority of your—"I Want to Knows." Use them.

REPORT OF THE HEALTH LECTURES GIVEN IN MICHIGAN UNDER THE AUSPICES OF THE JOINT COMMITTEE ON PUBLIC HEALTH EDUCATION 1925-26

To the Members of the Joint Committee:

Gentlemen—I wish to submit the following report of our Health Education Program for the year, 1925-26.

Appointment of Dr. Sinai. One of the important steps in our health education work, so far as the administration of this activity is concerned, was the appointment last year by the Regents of Dr. N. Sinai of the department of Hygiene and Public Health of this university to give half-time service to the Extension Division in connection with our state-wide health program. During the year, 1925-1926, Dr. Sinai was called upon to give a large number of health lectures throughout the state, being assigned in general to centers not easily reached by members of our medical staff of speakers. In addition to this lecture work, he was authorized by the director of the Extension Division to undertake the reorganization of our health education work in Detroit.

Health lectures in Detroit. Prior to the past year it was our practice to assign members of the medical profession of Detroit to speak to student assemblies and other organizations interested in health work. In some cases as many as 3,000 students met in assembly to listen to these health talks. It soon became apparent, however, that it was impracticable to handle satisfactorily such large student audiences. Dr. Sinai was therefore requested to recognize the work in such a way as to make arrangements for

health lectures before maller groups. In this reorganization work he received invaluable assistance from Dr. J. H. Dempster and other members of the Wayne County Medical Society Committee on Public Education, and also from the Principals of the Detroit high schools. The plan which Dr. Sinai and the Detroit committee worked out and ultimately put into practice involves the following three important features:

(a) First, a series of five groups of subjects was prepared to be given in order to the schools selected. These five groups included lectures on the following subjects: Health Habits. The Heart, Diet, Digestion, Bacteria and Accidents and First Aid.

(b) Five or six speakers were selected for each group of lectures. An outline of the entire series of lectures, together with the dates, hours, and places chosen for each lecture was placed in the hands of the speakers. In addition to this general announcement, reminder cards were sent from the Extension office to the various speakers concerned a week before the date set for the address.

(c) The approval and co-operation of the Principals and Health Directors of the various schools concerned was obtained. Most valuable assistance in the carrying out of the details of the program was given by the principals and teachers.

Health lectures, as above outlined were assigned to the following schools in Detroit and vicinity:

Cass Technical high school.
High School of Commerce.
Eastern high school.
Northeastern high school.
Northwestern high school.
Northern high school.
Redford high school.
Southeastern high school.
Southwestern high school.
Strathmoor high school.
Western high school.
Detroit University school.
Hamtramck high school.
Highland Park high school.

The program as arranged and carried out in Detroit and vicinity included the following speakers:

Health Habits
Guy L. Kiefer, M. D.
William Donald, M. D.
Chester A. Doty, M. D.
W. H. Gordon, M. D.
Don W. Gudakunst. M. D.
Kegham Chutjian, M. D.

Diet
Henry R. Carstens, M. D.
B. C. Lockwood, M. D.
H. B. Garner, M. D.
W. J. Stapleton, M. D.
Lynn F. Webber, M. D.

Bacteria
H. L. Clark, M. D.
Roy Pryor, M. D.
Fred M .Meader, M. D.
Carl Buck, M. D.
Charles T. Root, M. D.
R. L. Novy, M. D.

The Heart
Stuart Wilson, M. D.
Walter J. Wilson, M. D.
E. D. Spalding, M. D.
C. E. Dutchess, M. D.
Willard Mayer, M. D.
Douglas Donald, M. D.

Digestion
R. S. Stone, M. D.
J. H. Dempster, M. D.
Winard Pyle, M. D.
John L. Chester, M. D.
George J. Baker, M. D.

Accidents and First Aid
Charles F. Kuhn, M. D.
B. F. Larsson, M. D.
J. Walter Vaughan, M. D.
Don W. Gudakunst, M. D.
A. R. Hackett, M. D.

Records of all lectures given were kept on file in the Extension office, reports of each lecture being received both from the doctors giving the lectures and the principals of the schools to which the assignments were made. With very few exceptions, these reports were favorable. The program as a whole was very satisfactory, so much so indeed, that every school in which the lectures were given made application for a continuation of the work this year.

Number of health lectures given in Detroit and Wayne County schools..137
Average attendance.....215

Health lectures in the Grand Rapids and Flint schools. The Detroit experiment proved to be so successful that Dr. Sinai was instructed to organize similar health lecture series in Grand Rapids and Flint. The time available for this work was short, but it was thought advisable to attempt the initiation of the program. The school superintendents and principals of both cities approved of the plan and lent active co-operation in the organization of the work.

In Grand Rapids lectures were given in the following schools:

Central high school.
South high school.
Union high school.
Vocational school.
Creston Junior high school.
Ottawa Hills high school.
Harrison Park Intermediate school.
Burton Intermediate school.
Girls' Catholic school.
Christian high school.

The following speakers and subjects were selected for the Grand Rapids series:

Health and the Microbe
J. S. Brotherhood, M. D.

F. C. Kinsey, M. D.
Balanced Eating
B. R. Corbus, M. D.
T. D. Gordon, M. D.
The Heart
William R. Vis, M. D.
A. J. Baker, M. D.
Accidents and First Aid
R. H. Denham, M. D.
L. E. Sevey, M. D.
Health Habits
A. M. Campbell, M. D.
R. R. Smith, M. D.

Number of health lectures given in Grand Rapids schools..... 48
Average attendance.....500

In Flint health lectures were given in the Central high school, South Junior high school, Whittier Junior high school, and the Emerson Intermediate school by the following speakers:

Health Habits
E. B. Pierce, M. D.
Medicine as a Vocation
W. H. Marshall, M. D.
Accidents and First Aid
A. C. Blakeley, M. D.
Diet
F. B. Miner, M. D.
David Jickling, M. D.
Bacteria and Disease
L. R. Himelberger, M. D.

Number of health lectures given in Flint schools..... 24
Average attendance.....325

Extension of the Series Plan of Health Lectures to other centers of the state. Our health lecture programs conducted in Detroit, Grand Rapids, and Flint worked out so well last year, as considered from the viewpoints of both the members of our speaking staff and the principals of the schools concerned, that we shall undertake this year to extend this plan not only to a number of other cities in Michigan, but also to several of the counties. In a later report I shall outline briefly the proposed plan, especially as affecting the work next year in certain selected counties.

Health Lecture Program throughout the state. During the past year we continued our practice of assigning speakers for health lecture programs in connection with Parent-Teacher Associations, Women's Clubs, Luncheon Clubs, Granges, and other community organizations when called upon for this type of service. According to the reports received by the Extension office these assignments have, in general, proved satisfactory. Occasionally local committees have found fault with the speakers assigned. Such complaints, however, were on the whole very rare. Local committees are, in general, very charitable.

In a few instances speakers reported unsatisfactory program arrangements on the part of local committees. The main complaints this category had to do with the admitting of small children to the lectures. In assigning health lectures every effort is made by the Extension office to instruct local committees as to satisfactory program methods of organization. In some cases the number of people attending health lectures, especially when such lectures were assigned in small and outlying communities, was very small. In this connection, three things should be kept in mind: (a) The first is that in many centers to which health lectures are assigned the audience is bound to be small because of the limited number of people in the community in question. (b) Second, if all the people of the state were enthusiastic about health and health lectures, no such program as the Joint Committee is attempting to carry out would be necessary. We have undertaken an educational program and it is important to bear in mind that the process of education is under the most favorable circumstances a slow one. (c) And, finally, it should not be forgotten that while in some cases the audiences which have greeted our speakers have been relatively small, the average attendance upon these lectures throughout the entire state was 180. This means that while in a few cases we have had small audiences, in the great majority of cases the attendance was remarkably high.

During 1925-26 one of or more health lectures were assigned to the following centers throughout the state:

Adrian	Gagetown	Montrose
Alpena	Gaines	Mount Clemens
Ann Arbor	Galesburg	Mount Morris
Armada	Galien	Muskegon
Bay City	Gladwin	Niles
Berrien Springs	Glennie	North Adams
Big Rapids	Goodrich	Okemos
Britton	Grand Blanc	Onaway
Calumet	Grand Haven	Orion
Cass City	Grand Rapids	Otisville
Cedar Springs	Grass Lake	Otsego
Ceresco	Grosse Pointe	Oxford
Clinton	Hamtramck	Pentwater
Clio	Hancock	Plainwell
Coldwater	Harrisville	Pontiac
Comstock	Hartford	Redford
Coopersville	Hesperia	Reed City
Coral	Highland Park	Rochester
Croswell	Homer	Rogers City
Davison	Hudson	Romeo
Dearborn	Ida	St. Clair
Deckerville	Ionia	Saline
Detroit	Jackson	Sault Ste. Marie
Dexter	Kalamazoo	South Lyon
East Tawas	Kingsford	South Rockwood
Eaton Rapids	Kingston	Spring Lake
Eau Claire	Lake Odessa	Standish
Ecorse	Lakeview	Sturgis
Elsie	Lansing	Swartz Creek
Fairgrove	Laurium	Tecumseh
Farmington	Leslie	Tuscola
Fennville	Lincoln	Union City
Fenton	Linden	Unionville
Flat Rock	Maple Rapids	Vernon
Flint	Midland	Waldron
Flushing	Millersburg	Washington
		Ypsilanti

Health lectures were given in the above

centers by the following members of our speaking staff:

I. M. Altshuler, M. D.
A. C. Blakeley, M. D.
W. I. Bailey, D. D. S.
A. J. Baker, M. D.
C. H. Baker, M. D.
Geo. J. Baker, M. D.
H. A. Barbour, M. D.
Barbara Bartlett, B. S.
H. F. Becker, M. D.
G. M. Belhumeur, M. D.
C. E. Boys, M. D.
S. E. Braendle, D. D. S.
G. J. Broodman, D. D. S.
J. S. Brotherhood, M. D.
Carl Buck, M. D.
Margaret Bulkley, R. N.
Max Burnell, M. D.
Hugh Cabot, M. D.
C. D. Camp, M. D.
A. M. Campbell, M. D.
H. R. Carstens, M. D.
J. L. Chester, M. D.
Kegham Chutjian, M. D.
H. L. Clark, M. D.
Maria B. Coolidge, M. D.
B. R. Corbus, M. D.
F. P. Currier, M. D.
J. H. Dempster, M. D.
R. H. Denham, M. D.
Douglas Donald, M. D.
Wm. Donald, M. D.
Chester A. Doty, M. D.
C. E. Dutchess, M. D.
Lucy M. Eames, M. D.
C. R. Elwood, M. D.
W. F. English, M. D.
Ruth Figge, B. S.
W. L. Finton, M. D.
A. F. Fischer, M. D.
Raymond Forsythe
W. E. Forsythe, M. D.
H. B. Garner, M. D.
Nathaniel Gates, M. D.
T. D. Gordon, M. D.
W. H. Gordon, M. D.
D. W. Gudakunst, M. D.
A. R. Hackett, M. D.
Dorothy G. Hard, D. D. S.
Robt. Henderson, M. D.
W. D. Henderson, Ph. D.
L. R. Himelberger, M. D.
Melita Hutzel
J. B. Jackson, M. D.
A. L. Jacoby, M. D.
A. F. Jennings, M. D.
David Jickling, M. D.
W. J. Kay, M. D.
C. S. Kennedy, M. D.
Guy L. Kiefer, M. D.
Marie Kiernan
F. C. Kinsey, M. D.
Charles F. Kuhn, M. D.
B. H. Larsson, M. D.
A. Leenhouts, M. D.
George LeFevre, M. D.
Simon Levin, M. D.
H. B. Lewis, Ph. D.
B. C. Lockwood, M. D.
R. E. Loucks, M. D.
Don C. Lyons, D. D. S.
R. W. McGeoch, M. D.
R. W. McLain, M. D.
J. G. R. Manwaring, M. D.
F. B. Marshall, M. D.
W. H. Marshall, M. D.
B. H. Masselink, M. D.
Willard Mayer, M. D.
F. M. Meader, M. D.
F. B. Miner, M. D.
E. D. Mitchell, A. M.
A. R. Moon, M. D.
Helen D. Moore, R. N.
Elba L. Morse, R. N.
R. L. Novy, M. D.
E. B. Pierce, M. D.
F. A. Poole, M. D.
Roy Pryor, M. D.
C. D. Pullen, M. D.
Winand Pyle, M. D.
H. E. Randall, M. D.
H. A. Reye, M. D.
H. M. Rich, M. D.
Otto L. Ricker, M. D.
Charles T. Root, M. D.
H. C. Saltzstein, M. D.
S. E. Sanderson, M. D.
L. E. Sevey, M. D.
N. Sinai, D. P. H.
C. C. Slemons, M. D.
R. R. Smith, M. D.
E. D. Spalding, M. D.
Wm. J. Stapleton, Jr. M. D.
R. S. Stone, M. D.
John Sundwall, M. D.
E. R. Swift, M. D.
A. C. Thompson, D. D. S.
L. C. Towne, M. D.
Pearl Turner
J. Walter Vaughan, M. D.
Wm. R. Vis, M. D.
F. C. Warnshuis, M. D.
Lynn F. Webber, M. D.
Theo. J. Werle
C. M. Williams, M. D.
Stuart Wilson, M. D.
Walter Wilson, M. D.

Total number of health lectures given in the state	480
Average attendance	180
Total attendance	84,000
Increase in number assigned over last year	45%

PUBLICITY PROGRAM OF THE JOINT COMMITTEE

At the meeting of the Joint Committee held in Ann Arbor on April 26, 1926, provision was made for the organization of a Bureau of Publicity, this work to be under the direction of a Publicity Committee and to be carried on through the Extension Division. The members of the Publicity Committee are Drs. Jackson, Biddle, Sundwall and Mr. Werle and Mr. Henderson. A start was made in this publicity work, articles approved by the committee being forwarded to the Extension Division through Mr. Werle's office at Lansing. A complete list of addressograph plates was prepared by the Extension Division, this list of addresses covering both the daily and weekly papers of the state. About the fist of June articles began to go out to the press. At the present time we have no means of reporting as to the number of articles which were actually used by the papers of the state. Provision has been made, however, for securing through the agency of a clipping bureau some information on this point.

At the April meeting it was voted to establish a Publicity Fund, this fund to be deposited with the treasurer of the university under our trust fund provision. The fund is entered on the university books as the Joint Committee Publicity Trust Fund. The following is a statement of receipts and disbursements to date:

Receipts

Michigan State Medical Society	$100
State Dental Society	100
University of Michigan	100
	$300

Disbursements

Mimeographing, stationery and postage	$146.46
	$146.46
Balance on hand	$153.54

Respectfully submitted,
W. D. HENDERSON,
Secretary.

CALL OFF YOUR DOGS

By Jack Pines

According to the custom of the politician I should begin by complimenting my audience, especially the beautiful ladies. But I am not likely to kiss any babies today. As I looked over the audience at Greenbush the other day I labelled it the finest body of real manhood I had ever addressed.

Our excellent associations have done wonderful work. They have improved not only the standard of medical work, but they have improved the personnel of their membership. Among one of the many improvements of the past 10 years is the elimination of the "Lost Manhood Bunch." Some have died, some have reformed and been taken into the associations, while the others have gone into politics and the service of the so-called state board of health.

Now it is up to you to get in touch with our state officials and drive the scalawags out of office. I cannot tell you how. It can be done through your own party if you will get to work right now before the coming election. Begin at home. See that you have a State Board that will work with the physician instead of against him. Do you know that in our large cities men are draw-

ing public money for exploiting the cults? The teachers of hygiene, of physical culture, of athletics and recreation are many of them teaching the propaganda of the various anti-medical cliques. They are conducting boys' schools right now right here in Michigan, and to take the curse off they try to get some flabby regular practitioner to drop in occasionally and hold the bag. At some of these camps even now c.s. readings are being given to the boy boarders who are paying $50 a week for our glorious fresh air. And once in awhile they can find a soft-boiled medical man who is flattered to have his name upon their advertising matter. We write these things to prominent physicians in the large cities, but they are too busy with golf and clubs to give attention. Yet they say they do not see how these frauds get their start.

I hope that this is not my swan song, but I am old and there is much that our journals do not say that is of vital importance to the members of this society.

Pardon me for being personal, gentlemen, but in the beginning I wish to mention my competitor, my colleague, Dr. MacKinnon, my comrade. I knew him when he had seven competitors in a little burg not on the map. They are all gone now but me, and I am said to be ageing. We have gotten along fairly well. To be sure he has made mistakes, but I have always gone to him and explained that he was wrong, and then we could walk upon the same side of the street. We got along better when we found out that some of our patrons were liars who hoped to reduce us to a lower status and reduced fees by keeping us chewing ears.

Still he gets in a mean lick once in awhile, as for instance: When I was away last summer to the western coast my mail got scattered. I got three sets of journals, one to Lewiston, one to San Francisco and for some reason one to Alpena. In conversation with the doctor I remarked that my hobby was reading books and journals. This was true. I also said I read all the journals. This was true. I have little else to do. He gets all the practice, and I was honest in my statement. But, he rolled up his eyes, wrinkled his brow, and every hair upon his head stood up as he fired this one: "Yes, I see you do, look there," and he pointed directly at a stack of unwrapped journals. Of course I can never forgive that. It will remain an impassible chasm.

Still we help each other a little. Members of this society should help each other more than they do, and they can often do so.

For instance, if you want to buy a cow or a piece of good land I can tell you right where to go, and if you want a good looking office girl, Dr. MacKinnon can take you right to the beauty show. All of which calls to mind the days when I was teaching school and boarding around.

One day it fell to the teacher to take up his tempoary abode with a family that sent three young ladies to his school. Inasmuch as a school teacher in those days was supposed to be quite a prospect because he usually wore a white collar, paper, 30 cents a box, in a box or reversible 40 cents a box, it was but natural that parents with a surplus of daughters and a scarcity of calico should try to make a favorable impression.

The old man was digging a well. Although he was 12 feet below the surface of the earth he was carrying on a conversation with a group gathered around the top of the pit. As the teacher approached, the old man directed the conversation to him, and began by inquiring how his daughters got along in school and as to their conduct. After being assured that their conduct was perfect the old man remarked: "Well it ought to be if there is any thing in good breeding, me and my wife have been married nigh onto 30 years and we never had a cross word yet, Have we Miranda?" "Shut your head, you d----d old fool."

Truly, gentlemen, it adds to the pleasures of life to know that one has at hand a friend to whom he can go with any trouble and get needed help and sympathy. We feel that way, and the man who tries to wedge in between us gets the hammer.

"HYGEIA" Who said what you wanted for your patients? What do they know about your clientele?

It cost me around $4,000 and four years' time to learn a little about practical medicine; it cost some of you more than that. And for what?

To save life, to cure disease, to relieve pain.

Then every year comes a bill of around $150 for books, journals and other means of improving our medical education. Quite an investment, quite a tax, we do not need these books, these journals, these clinics; we get them for the benefit of our patients. Who else is doing as much for mankind? Not the salaried summer go-round. No, not by any means.

Now, gentlemen, we come to exhibit "A." The day of hornblowing is past. There has been too much of that, and I am ashamed to say it has often been done by men whom we have advanced to high places. Men in our own profession have taken advantage

of our courtesy to publicly belittle the American practitioner.

Darn a tinhorn anyway. The time has come to use a hammer. This is really a constructive implement, but it can be used if necessary to rip out a piece of bad work before it ruins a grand structure. From now on use the hammer, gentlemen.

I will now turn over this exhibit to the chairman of this society. Long may he use it as the constructive tool of this association, and may it also be used by all of you whenever necessary as the protective weapon of Michigan medicine.

The time has come for every registered physician of Michigan to say to the life-destroying gang that is hampering the humanitarian work of the American physician "CALL OFF YOUR DOGS."

We are saving life, curing disease, relieving pain. "Call off your dogs." Sick folks want the doctor.

Much is being written these days about educating the public in medicine. Not a word about teaching them how to vote. Your speaker is heartily in favor of teaching the conservation of health. To his personal knowledge the medical profession of Michigan has been teaching that for half a century, but they have neglected to claim credit for their work.

Much that is being exploited in the propaganda of politicians was announced by members of this society before some of our officials were born. We have been allowing these politicians to profit by our work, our unpaid discoveries. The public has been led to believe that all real progress in sanitary matters has been made by people outside of our ranks. Get your hammer and wade into them.

Iodine was used in the treatment of goiter centuries ago, and its merits were made known to the world by the physicians of the past. Yet, within the past 10 years it has gone out that certain politicians have made a great discovery. And even do they go so far as to say that "physicians are now being instructed how to use it." And we allowed this because we had no hammer. Nevermore.

Going back about four months I found among the few unfortunates who were obliged to call at my office during the absence of my worthy competitor a number who manifested a group of symptoms not like those of the locality or the season. Eventually it occurred to me that these were the symptoms of Iodism. A little helpful medicine and advice to quit Iodine brought about a cure in nearly ever case. Hammer.

The effort to make a physician out of every clinging vine who calls up over the phone asking how to use nitro-glycerine, aconite or insulin is worse than time wasted. Even now the physician at the beside has to decide whether he is examining a sick human or taking the inventory of a drug store. In time a properly educated public may be taught that much illness is caused by the indiscriminate use of toxins purchased from stores which flaunt the sign: "Try the drug store first." And this suggests that our worthy health officers have better work before them than hampering physicians.

Much of the so-called health work being done by our schools may be useful, but some of the attempts to teach therapeutics are worse than ridiculous. Country physicians are frequently called upon to furnish a nickle or a dime's worth of drugs that are so poisonous that even he himself uses rarely and then wit hextreme caution. Not long ago a fine healthy boy was sent home from school because he was two inches too tall and weighed 12 pounds too much. His father and each grandfather weighed around 200.

Probably every physician can quote many similar instances, but these will suffice to show that the advice of a certain popular journal that physicians should lend their medical literature to their neighbors is not to be followed. Medical journals left around for the perusal of our patients is to say the least, bad medicine. Hammer.

"Help educate the public?" Every time the general practitioner enters the sickroom he tells the patient or his attendant all that pertains to the case. Sure thing. Who else? In fact sometimes we talk too much. Sometimes I think our bills should read: "For instructing the family and the neighbors." Perhaps some of you have noticed how the cult people like to gather in the sickroom to pick up items they can use in some of their sidelines.

It might be wise for some of these uplifters to tell their audiences how to treat a physician and how to remunerate him for his labor.

Periostitis, treated by the cults six weeks, the poor little sufferer moaning her life away, my friend over there, called in to be on hand for the death certificate, works hard to save life and limb, and is largely successful, but in spite of the fact that the results of his work were almost miraculous his bill is still unpaid, yet people have recently raised a purse of $70 and sent it to the distant fakir that never even saw the child. Hammer.

Why are we allowing people who know so little about our business, never mixed

with common people, to advise the general practitioner how to manage his practice? Hammer.

It ought to be hammered into the heads of some of these spouters of prolixity that if the rank and file of the medical profession is to back the publication of medical matters to or for the public then should the rank and file know what is written and who writes it. Hammer.

When they come at you with that public medicine stuff do your duty as an American citizen and tell them the dangers of paternalistic graft. Counter irritants are for just such cases. And shoot it into the politicians. Tell them to call off their dogs.

And say: One gets sick of this diet stuff. The magazines are full of it. Your patients are sick of it.

The aim of this association is the advancement of medicine for the benefit of humanity. The dealer is entitled to a few cards in any game.

Brace up, doctor, use your hammer. Or, tie a rag around your leg and go limping down the street and every dog in town will chase you.

And, they have been rubbing the "mystery" stuff into us. The physician's life is a battle of mystery. The mysterious problems of life and death are not yet solved, and it is the physician who must grapple with them. Every case has its mystery, for instance, that girl who has been married only six weeks and has symptoms not far remote.

If we do not stand upon the street and gossip about the troubles of our patients they say: "Doctors try so hard to be mysterious." Get your hammer.

OUR worthy health officer says that our laws protect the physician. Who ever heard of such a law? As a rule your representatives hold up both hands and say "Tie here."

Let a physician raise his prices and watch the reaction of the lay press, yet a state official can raise his own salary and collect pay for running a school for training physicians—in politics.

When a lay paper says that the public has a right to expect much from physicians I want the writer to give his reasons, also to tell what the public gets from him. Hammer.

We have a glorious national organization. As with our great state society it is manned by competent and efficient men.

But, it may become top-heavy. Too many bureaus, commissions, etc. Perhaps its greatest danger lies in the fact that you, the active workers in the field, do not take sufficient interest in what your officers are doing. You should know what is to be published as well as what has been published.

Where were the physicians when it was time to enforce the prohibition amendment?

The public was terrified lest the medical profession should have any thing to do with it.

Could it have been handled more clumsily? Where was the great American Association at that time? Were its officers looking after your interests? Good Lord, you don't need to be a physician to make money out of whisky.

Too much space is often given to men who are not in touch with the rank and file. Men who have inherited their practices and dropped into soft places are not likely to be competent to dictate the policies of our journals or our practice.

Nor should these men be allowed to burden the pages of all our journals with the same article. It goes beyond assumption for a writer to insist that his article be printed repeatedly. You pay the expense of publication. Why should you turn over the pages of your journals to some one who knows about your business and very little about his subject. When a writer says that 20,000 of the physicians of the great state of New York do not own nor know how to use a stethoscope it is time for someone to come forward with a hammer.

One of our popular magazines devotes a page to "More dishes without meat"; perhaps some readers as well as most of my audience would prefer "more meat and less dishes."

And here is another urgent call for the hammer. This infant mortality stuff has been broadcasted for the past five years. We have reason to believe that no nation upon the earth takes better care of its mothers and babies than does the United States of America. I have been told by foreign peasants that in the old country very little attention is paid to the so-called mishaps. We see the broken-down victims of neglect as they come to our shores and we have ample chance to make comparison.

Statistics are not always fair. We know a physician who reported three stillbirths in 48 hours. He had never seen one of the women before. One was a foreigner only six weeks in the country, one was but a few days from another state and one was a summer resorter who had come north hoping that the rough journey and other hardships would do just what they did.

What would you think of a woman who boasts of being the mother of 18 children mostly morons and who also boasts that she

carries "papers" from the state board of health entitling her to practice midwifery?

Now, gentlemen, I have been around somewhat. I have not seen a case of puerperal septicemia in a dozen years. I have not known of a case in the practice of my friend and colleague.

In my whole life I have never delivered but two dead babies that were alive when I got there. I think that the average rural practitioner can safely compare cases with some of those who would like to sell their services to the dear motherhood of America. It is also a well known fact that some of the poorest obstetricians are making the most ado about affairs as they do not exist outside their own pactice.

Probably you all remember that article about "synergistic analgesia" that appeared in one of our leading journals and was copied in all of them and in the lay press as well. Not one physician in this room could hold his practice if he practiced such a diabolical way of managing a case. It was absurd and cruel. Few American women would ever subject themselves the second time to such treatment. The writer tells of taking 58 hours to dilate the os, and writes as though he thought it quite a feat. He tells of the harmful and dangerous things he and his helpers did as though they were a part of necessary technique. Evidently he did not know how such cases were usually conducted. All the analgesia he got was from the opiates, and they were not properly administered. That stuff should have been kept out of the medical journals. No time was saved, the woman's sufferings were greatly augmented, and there is not a physician in this room that could not terminate any of the cited cases with the greatest success in half the time and save the patient pain and mortification. Hunt up that article and let your wife read it and ask her how she would like such a Tom Sawyer method.

You should use your hammer whenever an attempt is made to make it appear that the natural course of water should be up hill, or to show you off to a disadvantage to the reading public.

Head this off "doctors needed in the country" stuff. When the city papers come out with an urge to the young physician to settle in the country tell them that only a year or two ago this section of the state had three physicians in their county houses.

No one is doing anything for your old people. Even the doctors are fighting the old age pension. Better let them have a little money for the local physician to make easy the last days of our grand parents rather than so many dollars to old maids for exploiting the "Save the Babies" stuff.

Tell them they better take a little more interest in our elderly folks who are being shamefully neglected throughout the entire land.

Once in awhile one of you will grow old.

Gentlemen, here is a specimen of horn blowing by a noted Boston physician. He says, in our journals too, that 68 per cent of the cases sent to him are incorrectly diagnosed. Get your hammer. No case of mine will ever go to him. It reminds me of the case that I sent to a throat specialist for an up-to-date laryngoscopic diagnosis. He kept her several weeks and sent her home an abdominal operation. It was in the days when the password was "Lane's Kinks" and almost every specialist had a kink. About seven months later the patient died of tuberculosis, pulmonary.

Use the hammer upon that molly coddle who announces that medicine does not cure disease.

Cut out that inhuman monster who says that it is not professional to relieve pain. It is a prominent feature of general practice to stop human suffering. There are a hundred things besides morphine that will do it.

Gentlemen, when you are back in our country come and see me. You will have no difficulty finding the road for you will find it strewn with discarded insulin syringes, and as you pass the schoolhouses you will observe the children playing marbles with stacks of aspirin tables for stakes.

You are members of a great association and you should make yourselves as important to that body as it is to you. Use your hammer and assert your membership. Perhaps the rank and file will yet have a board of censors to decide in advance whether the publication of an article will be in the interests of the field worker.

There are too many bright-light fellows pretending to be working for the uplift of the profession. Speaking of mysteries, it is a mystery how they manage to get their effusions into print. Editors must be overworked or such stuff would never get by.

These swivel chair practitioners have too much to say about their superiority. Use the hammer.

The journals of the cults are very careful not to publish anything that discredits their supporters.

I have great respect for the majority of our medical writers and for the editors of most of our journals. The work of our journals is most wonderful. Medical progress as portrayed by our association journals has been beyond our greatest expecta-

tions. Then why neutralize it in order to give some lounge lizard a chance to get his name before the lay public? The man who writes to exploit himself at the expense of abler men should not be delegated to entertain the public. Anything that prejudices the public against the American Physician should not be granted space for that is the kind of article that the lay papers will pounce upon. Speaking of publicity stuff—thousands of good practitioners would like to know who is to do the writing and what he is going to write.

Gentlemen, someone has to say these things, and it will hurt an old man less to say them than it will hurt a younger man who has yet to make his way. Gentlemen, be careful how you exhibit this publicity stuff. The best thing for the American physician to say at the present time is: "Call off your dogs."

Then and not until then will there be a resumption of friendly relations between physician and patient.

What then? Let every member of our societies get in touch with the officers and editors thereof. Do not let them forget that there is a rank and file.

The best word spoken for American medicine has recently been written by Ray Lyman Wilbur of Leland Stanford University. He tells us in a direct way what can be done and what should be done. The most practical article upon that subject.

Did you read the article by Bernard Fantus upon the technic of medication? Thorough, practical, very much needed and worth 10 years subscription to any practitioner. A good book to buy.

And that article by Dr. Deland upon Radium and Cancer. I venture that it is the best and most hopeful article ever written upon the use of Radium. Many a $10 book has been palmed off on the anxious physician that does not tell as much.

Our tables are covered with reading matter, and some of it is, oh, so prolix. The color of the dog and his weight in ounces. We cannot today read even the fraction of it. Then let us ask our writers to condense and our editors to avoid repetition.

We are tired of the fellow who gets himself at the top of the stairs and shouts down to us that we must read his indigestible stuff before we can come up.

The good old pastor had reached "twelfthly" and had informed his audience that they must not expect him "to dilate" when his wide awake daughter called out to him from a back pew: "You'll die late if you die tonight Dad."

Think of all the stuff that has been written about Iodine, and notice how easily one of our best writers knocked it all into a cocked hat. Shades of Crile and Crotti! The State Board of Health teaching country schoolma'ams how to treat goiter.

Oh, yes. Summer resorting and weighing babies. The state paying the bills. In the winter scores of shanties crowded with suffering humanity and not a nurse within 40 miles. Our clinic. Cabbage and lettuce for nursing infants. Squirting green.

It does not flatter me to have one of these salaried nurses come to my office and ask me about how I treat certain cases. Too much has already been pumped out of the lonesome doctor for the benefit of salaried welfare folks.

Our medicine men should know about what is being done at Lansing. Hammer.

Here comes a little girl for 5 cents worth of sugar of lead. The teachers' examination papers tell how to use it and some of the most deadly poisons are thus advertised. If the local physician starts in to furnish a few cents worth of chemicals every time he is asked to do so he will soon find himself attending funerals if not facing a trial.

I see where a fellow down east is trying to find out if our fees cannot be lowered. That fellow gets $12,000 a year. Many a better man is not making the thousand. The second same man says the average laborer gets $2,600 per year. Yet he thinks the average city physician should not charge more than a dollar a visit. And some of our journals will publish the stuff and turn it over to the lay papers. Hammer.

Your blank for examinations is bum. Like a tapeworm, no head, no tail. My class balks squarely at religion and politics. Hammer.

Say, get after some of those medical uplifters with that hammer. Tell them to send that poor family some clean sheets and pillows, some soap, a wash bowl, Lord, let's keep them busy. Keep ahead of them. By the time they have washed up a case or two and furnished a few dollars worth of necessaries they will lose some of their hankering to be doctors.

The general practitioner gone out of practice? No. Specialists, Yes, after 10 years of general practice.

Use that hammer on the specialist who "specializes in everything." That is too silly.

I sent a girl to an eye man once for a pair of glasses. He sent back that he had found out that she was a masturbator. He also specialized in that. However, he stung her for a $17 pair of glasses.

Gentlemen of the Alpena Medical Society,

much is being published, much that is speculative, much that is false, much that illy fits our environments, but we must not forget that the work of a physician is saving life, curing disease, relieving distress, and we must do these things our own way for human suffering will not wait for prolonged laboratory investigations.

The rural physician is often perplexed as to whom to send a case. He sends a man to have an X-Ray examination and if he ever hears of the case at all he finds that the victim has suffered amputation of his right leg. Often the trouble for which the physician wants help is ignored and the patient led off on some tangent with the opinion that the first physician was an ignoramus and the second a fakir. Not long ago I sent a case away for nasal work. She had never breathed through either nostril in her life. She returned with a bottle of Lugol and a diet list a yard long. Doctor, go light on that diet stuff. We have to furnish some of that bill of fare and neither our markets nor our purses are adequate to some of the demands you make upon us. It is a mistake to prescribe drop-by-drop stuff. Have it diluted to fit the case before the patient gets it. Not too much publicity if you please. Every day you are giving the drugstore a chance to usurp the place of the physician.

We send these cases to you, we can do some of these things as well as they are often done, but they think that if we are such fools as to live in their communities we ought to do a $200 operation for 30 cents. Well, you have the advantage there. We have explained the need to them and you get the money and we get the groans.

Not long ago I was in a house where a bottle of nitric acid, undiluted, had been left to be taken three drops in water. It had been tipped over and scarred face is the result. Better to have been diluted.

Perhaps our new board of health will say something about patent medicine and drug store practice. Your fault if they don't.

Let us get into the harness. Let us take an active interest in the work of our associations. Let us assert our right to know what is being published.

Our association is all that we have. I am proud of it and of our officers. It is the advance guard of progress and is of benefit to every member.

Let not those outside the profession sidetrack us from our duty.

To save life, to cure disease and to relieve distress—And to vote.

And, gentlemen, don't forget the hammer. Make them call off their dogs.

R. H. Wood, M. D.

Editorial Comments

Mackinac Island, June 1927! Already we are outlining the program and events. It will be an annual meeting you will talk about for years. Keep your eye open for announcements each month.

If there are violators of our medical laws in your locality, we would like you to advise us as to who they are and what they are doing. Specific information is desired and as much evidence as you can supply. Your name will not be utilized.

Action of our House of Delegates: That every County Society subscribe for from five to five hundred copies of Hygeia to be placed in libraries, factories, schools and reading rooms. Has your County Society complied with this direction? The subject should come up at your next county meeting.

Again an opportunity to vote. Exercise your right. Get acquainted with your county candidates and tell them you expect them to represent the interests of all in matters of health. Fair play and sound principles is all we want. Vote—but know the candidates first.

The American Red Cross Disaster Relief Plan, adopted by the A. M. A. and our House of Delegates provides an emergency unit in every county. Read the editorial and at your next county meeting perfect your local organization. Just another instance of preparedness that will be effective when the emergency arises.

The Michigan Tuberculosis Association has distributed to all doctors a manual on Diagnostic Standards. This is an excellent manual, meriting study and observance by every doctor. Our thanks are due to the "M. T. A." That organization is accomplishing worth while things and is an outstanding asset to the state in the anti-tuberculosis campaign.

If you liked this and the October issue of The Journal, write and tell us. We purposely cut down the summer issues but now with longer evenings you will have time to read. If you don't like these issues tell us because we want to meet your desires. In reading do not omit our advertising pages. Patronize these firms who use your Journal and pay good money for the space.

Three-Day Clinical Course at Ann Arbor, November 11, 12 and 13. Three days of clinical demonstrations—from 9 a. m. to 5 p. m. Every hour filled with practical information that you take home with you and apply in your daily work. Two evenings of lectures by men of national fame. Can you afford to pass it up? We'll say you can't! So send in your enrollment. Your State Society is paying your tution. Its a membership benefit.

Tonic and Sedatives answers the inquiry: "If a physician cannot blow his own horn, etc.. who can?" by advising, "let his wife do it." That seems to be quite a common practice nowadays if one but turn to the society columns of local papers. If our "guides on etiquette" or "social customs" be consulted we learn that the form of "Mrs. Dr. Jones" is vulgar and a breach of demeanor or social caste. Evidently there is an increase in "vulgarity" and a considerable number of breaches, but the "horn tooting" goes on merrily.

Lest you forget—we remind you that we are not idle for right now we are forging ahead on the following projects: District Post Graduate Conferences, the three-day University Post Graduate Meet, legislative plans and contacts, Conference with State Nurses Association on Nursing Education, Committee on Policies at the University hospital, Red Cross Disaster Relief Plan, National Legislation, Activities of our medical and health laws, minimum program, survey of county mortality rates and one or two other projects. In addition we still keep contact with County Societies, get out your Journal, hold a monthly Executive Committee meeting, answer daily inquiries watch the funds, and all the other regular routine. We mention this not to record that we are busy, but simply to let you know your State Society is on the job devoting its all to further your inteersts. Ain't you glad your are a member? I guess it's worth while.

Should hospitals be licensed by the state, with definite standards justifying their existence and supervision of administration? That is a question we would like to hear discussed. We now license barbers, butcher shops, soda fountains, etc., for the purpose of protecting the peoples' health. Why not hospitals? As it is, anyone can take a house or unused building, smear the inside with white paint, put in a few beds, a sterilizer and equip a pseudo operating room and then hang out the sign "Hospital," even putting out a street sign, "Quiet: Hospital Zone." People are admitted and any old doctor can send in a patient, operate or treat him and nothing is said. That very same doctor is probably bared from the accredited hospitals because of deficient education and skill—the patient pays the price. We repeat, why not State Licensed Hospitals under control of the State Commissioner of Health with definite administration regulations and prescribed qualifications for attending staff members. What are you opinions thereon?

Mingle about and you are constantly reminded of how little you know or how small your own world is. We can't know, see or expand as we might wish. Our own work hems us in a somewhat narrow lane, seemingly bounded by a 16-foot fence. It is possible to scale the fence by means of two agencies—one diversified reading and the other, talking or rather listening to the other fellow. One man told us that the plumage of Michigan birds were undergoing color changes and losing their former brilliancy. The woodpecker no longer possesses the brilliant plumage of 10 years ago. Why, destruction of our forests—more sunlight, and of course now we know, only we hadn't noticed, compared or thought. Why are we in a deficient iodine zone? Same reason—more sun upon our vegetable plants. Then the other fellow, a clother, experiments with the penetration of sun rays through cloth material and cites some interesting facts due to the absence of sun rays to all parts of our body. We grasp the point but instead of wearing the right cloth material we increase our office practice and prevent rickets, etc., by Quartz light treatments. Supposing we all read a little more and seek opportunities of listening to the other fellow.

Physicians treating venereal disease cases have frequently expressed a need for a pamphlet containing instructions and advice to be given to venereal disease patients. Due to the nature of these diseases and the regimen which proper treatment requires, the need for such a publication has long been apparent. Some time ago the U. S. Public Health Service prepared a pamphlet known as, "Important Confidential Information" expressly for this purpose. The leaflet is in two parts, one dealing with gonorrhea and the other with syphilis. Advice is given among other points on the following : Importance of continuing treatment until cured, proper diet while under treatment, proper care to prevent the spread of the disease, the futility and danger of quacks and self treatment, sex conduct and marriage.

Many physicians have found this publication a valuable aid in securing the co-operation of the patient while under treatment and also as an aid in holding the patient until cured or rendered non-infectious. Copies of this publication are available from most State Departments of Health or they may be secured by writing to the U. S. Public Health Service, Washington, D. C.

The first General Section meeting was held in the ball room of Hotel Olds, Lansing, at 9:30 o'clock, President Darling presiding.

President Darling: Please come to order.

We have met together here for a purpose, to test the value of this state meeting, what it means to us and to the profession in general. We are here to measure up with what we were a year ago, to see if we made any advancement ourselves and to discuss the advancement that has been made in medicine in general. This time we are going to take a little different view perhaps from what we have in the past. We are going to examine ourselves a bit and see what the public thinks of us. The public will probably tell us. We have seen some indications of that in the press this morning. They seem to have a very good opinion of us, and if we can sustain that while we are here in Lansing, we will do pretty well. Aside from a few, I think that we can do that all right. (Laughter) I didn't mention who these were, but I think that you will understand what I mean.

Now the aim of this society is to spread the knowledge of medicine over this state and not spread it too thinly. Of course, there are places where it may get very thin. There are a number of members of this society and a number of members of the profession who are not with us today and we should say a word for them. We should make excuses for them because many of them probably have the proper excuse. I know that some of them used to have excuses when they were students. (Laughter) I presume they will be just as ready with excuses now as they were then.

The method of spreading the gospel of medicine to the people nowadays is so great that no person can be excused from not knowing something about health beside the lesson which he finds out by practicing upon himself. This may be spread in so many ways and yet there are some places benig missed. I am very earnest in my desire to have this examination of people in the schools, of children in the schools. I believe that from there we are going to build up a wonderful condition in a few years. We should remember that all progress in medicine has come very slowly. It took thousands of years to learn some things and they are not very well learned yet. So we shouldn't be disheartened if things don't move as rapidly as we wish.

The knowledge of medicine comes to the profession through medical journals. A medical journal isn't simply a subscription. To get the value of a journal you need to take the wrapper off and peruse the journal, not the wrapper. The cutting down of articles in the journals makes it possible for you to get the gist of almost everything that is written in the present day. You are in touch with the whole world of medicine through your medical journals. One should read

them with eare, and it takes only a few minutes every day to make you well aequainted with the medical literature. These are some of the things that we should keep in mind, the economy of time, the economy of reading if we are to know about what is going on. We should be careful about that.

I might go on and talk to you for some time along this line, but our meeting is in progress and it is now time to call on the other speakers.

Thoughts while strolling through several hospitals. While in eertain respects the form of this eomment may mimie a eertain Melntyre's column in daily papers, it is not an attempt at imitation. Imitation is said to be flattery and we are not disposed to flatter O. O. M., because his hashheesh does not as a rule merit such praise. However, people read it and want it so newspapers pay for it, much of it is pure rot; so may be is the following: Scrub women wearing flesh eolored silk stockings while moping up floors. Charity ward with florists flowers at bedsides representing expenditure of some $40. Florists make the money while hospitals give service free. Internes with duek coats about as clean as waiters in a Greek restaurant when noon rush is over. Nurse applying rouge to her faee before entering men's ward. She might better visit the plastie surgery department and have her features corrected more enduringly. Used bed pan on head stand beside patient's bed. Telephone operator; "Condition same," bang goes eonnection: wonder what anxious inquirer on the other end of line thought? Interne drops 500 ec. flask of eitrated blood just about to be given to recipient. More spilled gore at $15 per to donor. Unanswered eall light signals along corridors; this is eommon sight in all hospitals. Operative case still under ether, vomiting and unattended. Wonder if he chokes or developes an inspiration pneumonia? Internes emergency orders reveal great reliance upon pyramindon, allanol, sodium bromide grains III, nux vomica, M V, antiphlogistine, and a dozen other proprietaries and doses that are ineffective, no wonder patieuts rant on about terrible suffering. Blood pressure outfit with leaking bulb. Suture scissors that won't eut. Tissue forceps from the junk yard. Vanished bandage scissors. "Hole-ly" rubber gloves. Fish and eorned beef on Friday. Hot dogs for Thursday night's tray. Chikory coffee. Tire off dressing cart, same on stretcher. Utility room eluttered with—well you all know how it is a eatch-all for whatever a nurse has in her hands. Spring breezes (?) in the maternity nursery accompanied by a lusty chorus from the coterie of new-borns. No napkins so we use a towel in the emergency. Two undertakers wanting to load the same body. Surgeon's dressing room filled with cigaret smoke and stories. Doctor's eloak room filled with eigar smoke with internists seriously discussing slump in business. Reeord room with 160 ineomplete records waiting eompletion. Laboratory with usual array of "removal specimens" and a fetus or two. An emergency "D and C" and appendix. Surgeon giving an outside doctor theater tickets. Medical man inviting same doetor to his club for lunch. Wonder why? No more thought's just now—it may have been your hospital because it sounds familiar—but 'taint.

One of our cities held a centennial celebration last month. In connection therewith a booklet was prepared setting forth historical facts and recorded factors that influenced the city's development. The outstanding factors enumerated were individuals, banks, factories, commercial houses and stores, lawyers, engineers and clergy. A seant mention was made of the hospitals. We are wondering how long it will be ere writers, officials and human beings will realize and recognize that our modern eivilization with all its luxuries, our eities, towns and hamlets, business, trade, transportation and life of today have been made possible only through the achievements of the medieal profession. That without the benefits of seientifie medicine, none of our present boasted achievements would have been possible in the degree now existant. In this instance we know that the insistance and effort by the loeal doctors secured a water system that eradieated typhoid. That similar effort in regard to vaeeination obviated recurrence of the severe smallpox epidemie of 25 years ago, and that all the efforts for preventative measures to conserve health makes possible this city's prosperity and growth. In the eentennial celebration this medieal factor is ignored. But light is dawning and recognition will be forth coming. We have but to continue our edueaitonal efforts. The following editorial from The Saturday Evening Post bids eourage and continuousness of effort:

PROLONGING LIFE

We cannot be too grateful to the scientists and physicians who work for humanity. A man of large affairs, supposed to be ehiefly interested in finance and industry, astonished his dinner companions one evening by asserting that the greatest man in the United States is one of whom most of them had never heard—a medical consultant in an eastern city. Perhaps the halos should be transfered from statesmen, explorers, actors and prize fighters to this and other medical leaders.

Yet this wisdom is still in its beginnings. Even the common eold is like an unknown planet. If man's intelligence is measured by his absolute knowledge of his own diseases, it is very feeble.

But lack of knowledge is not the only bar to prolonging life. If we knew all, we should not have time or strength to apply it. There are said to be 212 eauses of ache or pain in the lower back. In any given case of backache, who will take time and trouble to cover all of them and thus isolate the cause?

Frequent physical examinations, preventive medicine, group medicine and eommunity elinics of one sort and another are advocated as means to prevent disease and prolong life. But social machinery is unequal to the task of putting every individual in as perfect a condition as even our present limited knowledge permits.

It is wise to be conservative and face the barriers that lie ahead. But it is inspiring to know that so much ean be accomplished by mere organization, by the provision of facilities that require only thought, care and financial resources. Many lives, especially of infants, have been saved simply by spreading education. A disease such as cancer baffles the scientist, but reduction of infant mortality, to which the lengthening average of life is so largely due, has followed simple additions to general education in hygiene.

Then, too, the increasing effectiveness of public-health service—federal, state and municipal—is a little appreciated factor in stretehing the span of life. Public health service goes about quietly 24 hours a day preventing trouble. When dread epidemics get a foothold, as they so often do, there is a silent but swift and unusually effective concentration of defensive measures which the public does not sufficiently realize.

It is a fair question whether modern man has really turned enough of his energies to his own physical preservation. Countless victories over nature make us

jubilant. We have telephones, automobiles and radio sets. Material prosperity in this country is the wonder of the ages. But what are financial and industrial victories if we cannot defeat the common cold? We exult over relativity and advanced of atomic structure, but to what advantage if our own physical, nervous and mental organisms are not equal to life's strain?

Statement of the facts and opinions agreed to by the International Meeting of Cancer Control held at Lake Mohonk, N. Y., September 20-24, 1926—Although the present state of knowledge of cancer is not sufficient to permit of the formulation of such procedures for the suppression of this malady as have been successfully employed for the control of infectious diseases, there is enough well established fact and sound working opinion concerning the prevention, diagnosis and treatment of cancer to save many lives, if this information is carried properly into effect.

1. The causation of cancer is not completely understood, but it may be accepted that for all practical purposes cancer is not to be looked upon as contagious or infectious.

2. Cancer itself is not hereditary, although a certain predisposition or susceptibility to cancer is apparently transmissible through inheritance. This does not signify that, because one's parent or parents or other members of the family have suffered from same or succeeding generation.

3. The control of cancer, so far as this subject can cancer will necessarily appear in other persons of the be understood at the present time, depends upon the employment of measures of personal hygiene and certain preventive and curative measures, the success of which depends upon the intelligent co-operation of the patient and physician.

4. Persons who have cancer must apply to competent physicians at a sufficiently early stage in the disease in order to have a fair chance of cure. This applies to all forms of cancer. In some forms early treatment affords the only possibility of cure.

5. Cancer in some parts of the body can be discovered in a very early stage, and if these cases are treated properly the prospect for a permanent cure is good.

6. The cure of cancer depends upon discovering the growth before it has done irreparable injury to a vital part of the body and before it has spread to other parts. Therefore, efforts should be made to improve the methods of diagnosis in these various locations and the treatment of the cancers so discovered.

7. The public must be taught the earliest danger signals of cancer which can be recognized by persons without a special knowledge of the subject, and induced to seek competent medical attention when any of these indications are believe to be present.

8. Practitioners of medicine must keep abreast of the latest advances in the knowledge of cancer in order to diagnose as many as possible of the cases of cancer which come to them.

9. Surgeons and radiologists must make constant progress in the refined methods of technic which are necessary for the diagnosis and proper treatment not only of ordinary cases but of the more obscure and difficult ones.

10. There is much that medical men can do in the prevention of cancer, in the detection of early cases, in the referring of patients to institutions and physicians who can make the proper diagnosis and apply proper treatment, when the physicians themselves are unable to accomplish these results. The more efficient the family doctor is, the more ready he is to share responsibility with a specialist.

11. Dentists can help in the control of cancer by informing themselves about the advances in the knowledge of the causes of cancer, especially with relation to the irritations produced by imperfect teeth and improperly fitting dental plates. They can also help by referring cases of cancer which they discover to physicians skilled in the treatment of cancer in this location. It may be doubted whether all dentists fully realize the help which can be obtained from X-ray photographs in revealing not only the state of the teeth but the condition of the bone surrounding them.

12. Medical students should be instructed in cancer by the aid of actual demonstrations of cancer patients, and this to a sufficient extent to give them a good working knowledge of the subject.

13. The most reliable forms of treatment, and, in fact, the only ones thus far justified by experience and observation, depend upon surgery, radium and X-rays.

14. Emphasis should be placed upon the value of the dissemination of the definite, useful and practical knowledge about cancer, and this knowledge should not be confused nor hidden by what is merely theoretical and experimental.

15. Efforts toward the control of cancer should be made in two principal directions: (1) The promotion of research in order to increase the existing knowledge of the subject, and (2) the practical employment of the information which is at hand. Even with our present knowledge many lives could be saved which are sacrificed by unnecessary delay.

Among Our Letters

NOTE—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Suite 1508, Grand Rapids National Bank Bldg, Grand Rapids, Mich.*

Editor of The Journal:

I wish to thank the State Society for the compliment paid me in making me an honorary member of the society.

Yours respectfully,
D. Emmett Welsh, M. D.

Editor of The Journal:

Your kind letter of September 23rd, received, and the compliment extended to me by the House of Delegats is duly appreciated. I also appreciate the kind words which seem personal from you.

Truly yours,
R. H. Spencer.

Editor of The Journal:

I wish to thank you most sincerely for the kindly manner in which you advise me of the honor conferred upon me by the State Medical Society.

I accept the honor with pleasure and hope to con-

tinue in the future as in the past, strongly ethical, again thanking you, I remain.

Fraternally yours,

Eugene Smith.

Editor of The Journal:

I have your letter, and note what you say regarding re-imbursement for expenses.

I feel that after such an enjoyable time at your meeting I would prefer to consider the trip a part of my vacation.

Assuring you of the pleasure which it gave me to come, I am

Sincerely yours,

Irvin Abell.

Editor of The Journal:

I have received your kind letter of the 20th inst. informing me of my unanimous election as delegate to the A. M. A. One majority is however hardly unanimous but it was enough.

I thank you for the congratulations and trust you that my service to the A. M. A. and the state society may prove to us mutually agreeable and beneficial.

Very cordially,

J. D. Brook.

Editor of The Journal:

This is to acknowledge your letter notifying me of my appointment as a member of the Committee on Medical History. Will you kindly convey my thanks to President Jackson and at the same time assure him that I stand ready to do whatever I can to carry out the purpose for which the said committee has been appointed. Would you kindly write me in detail in regard to what is really expected of this committee? I had several years ago worked up the History of Medicine in Wayne county which was published in a work gotten out by C. M. Burton entitled The History of the City of Detroit. I remain,

Sincerely yours,

J. H. Dempster.

Editor of The Journal:

I am in receipt of your letter advising me of the high honor the Michigan State Medical Society has bestowed upon me at their annual meeting held in Lansing, September 14, 15 and 16th, by electing me as Honorary Member of the State Medical Society.

The Michigan State Medical Society has done much to create a feeling of co-operation among the medical profession, which was almost entirely lacking 35 years ago.

The young man just out of college with his latest theories and the older one with his years of experience will now talk it over with mutual benefit to both.

Thanking the society through you for this high honor and a wish for its prosperity.

I am fraternally.

R. E. Miller.

Editor of The Journal:

I am just in receipt of yours informing me that the State Medical Society had elected me an honorary member of the society.

I assure you that it gives me the greatest pleasure to extend to you and through you to the society my sincere thanks and appreciation for the great honor thus conferred on me. In years gone by the society had my support and attendance, and I gloried in its achievements. Since the years have accumulated I have found it quite impossible to attend its meetings but I have always a warm spot in my heart for my old associates of long ago. Thanking you again for this expression of appreciation and wishing the society the grand success in the future it has met with in the past,

I remain most sincerely yours,

J. E. Clark.

Editor of The Journal:

A recent experience prompts me to issue this word of warning to our medical brethren.

Some time ago an agent of the World Bonded Adjusters, collection agency of Chicago, came to me and wanted some of my accounts for collection. Their commission to be 50 per cent on all collections and nothing more in the way of expense.

They collected $3 and instead of paying me my little $1.50, state that this does not cover their "docket fee" for office filing.

I told them I would publish this misrepresentation on their methods of doing business but it did not bring a rise out of them.

That $1.50 would buy two golf balls and as many of mine are in the rough, I need 'em.

Yours,

Starr K. Church.

Editor of The Journal:

You will remember that some time ago you received a copy of the Beaumont lectures given at the Wayne County Medical Society by Drs. Mayo and Plummer which was reviewed in the State Journal. We still have a large number of these books on hand and it is the desire of the committee to distribute as many as possible throughout the state. If this is not contrary to your advertising policy of the Journal might we request that you give this matter a little publicity in the Journal. The price of this series is $1.50.

We believe that a copy of the Osgood lecture, "The Evolution of Orthopaedic Surgery," was forwarded to you but a review of the book in the Journal as far as we know has not been forthcoming. We also have a number of these books for distribution. Price, $2.

Yours sincerely,

E. C. Baumgarten, M. D.,
Lectureship Foundation Committee.

Editor of The Journal:

Replying to your letter of October 7, will advise you that both dates offered you by the hotel at Mackinac Island conflict with the Clinic Week of the Detroit College of Medicine and Surgery. The commencement exercises will be held on June 16, 1927.

It seems to me however, that this should make no particular difference in the assignment of a date for the annual meeting of the state society since comparatively few of the Detroit physicians or even of the teaching staff itself of the college attend the commencement exercises or the talks and demonstrations given during the Annual Clinic Week.

Certainly the Detroit College of Medicine and Surgery would on no account wish to interfer with the plans of the Michigan State Medical Society.

Very truly yours,

W. H. MacCraken, M. D., Dean.

Editor of The Journal:

Your letter announcing my election as honorary member of the Michigan State Medical Society, at the 106 Annual meeting recently held at Lansing, came to hand this morning.

Words cannot express my appreciation of this action of the society.

To have been an active member of the society for these many years has brought to me one of the deepest and sweetest blessing of my life.

My association with the members of the society has raised my ideals and added each year to my professional equipment.

A wonderful fullness and richness has come to me which only could have come by such an association.

I must not forget, my dear doctor, to express to you my appreciation of the many kindnesses which you have been "guilty" of showing me during the past years.

Yours most sincerely,
C. B. Stockwell.

Editor of The Journal:

I am sending this letter for publication in the "Michigan State Medical Journal" so that the contained information may reach all the physicians of Michigan.

There has been established at the Children's Hospital of Michigan an "Asthmatic Clinic" for the study and treatment of asthma in children. To date it has been operating for about one year with rather eminent success.

We are desirous of obtaining a larger number of patients; we therefore invite all physicians in the state of Michigan to refer to us any asthmatics they would like to have studied and perhaps treated.

Careful histories are made, physical examinations done, protein skin sensitization tests made and a new form of treatment carried out.

"The Clinic" is an entirely free one. Our desire is altruistic, and we also wish to obtain a larger amount of material for study which must result in increased efficiency in our care of the patient.

Very cordially,
M. B. Kay, M. D.
Medical Director of the Out-patient Department, Children's Hospital of Michigan.

Editor of The Journal:

I acknowledge with thanks your letter in which you speak of me being appointed chairman of the Committee of Venereal Prophylaxis.

I appreciate the courtesy shown me very much indeed but at the same time I feel that it is a very responsible position and that if one did what he should, it would require a great deal of work and effort. It grieves me that as a profession we are not accomplishing what we should in the prevention of venereal disease. Just recently we had an epidemic of gonorrhea in our own high school where 70 boys were infected by three girls. Such a thing ought never to exist.

I, personally, would like to put forth some effort to stimulate every practising physician in Michigan to lend his influence in every way possible to check the spread of this infection. I believe that the medical profession can do it if they would see to it that every man or girl that has an acute infection was properly restricted so that they could not transmit it.

Hoping that I may be able to do something and thanking you for this courtesy, I am

Very truly yours,
W. F. Martin, M. D.

Editor of The Journal:

I am most happy to be in receipt of your esteemed favor of yesterday advising me that the House of Delegates has elected me as an Honorary Member of the Michigan State Medical Society.

May I, by your kindness extend to the members of the association my sincere thanks for the distinct honor thus conferred and to say that I profoundly appreciate their very kind thought of me. I fully realize that I am not in any wise worthy of this high distinction, either in character or by achievement, but I take it that your action is rather by way of a memorial of the nearly one-quarter of a century that I was an active member. I became identified with the Michigan State Medical Society in or about 1869, continuing in that relation till I changed my residence from Michigan to Florida where I continued practice till 1900 when the infirmities of age called a halt. Since then and for more than another quarter of a century I have been a superanuate, but during all this period of inactivity I have never lost my interest in, or love for the "Healing Art" and would delight to meet with you in session did not the disabilities of age forbid that pleasure.

Repeating my thanks and appreciation and extending to each of you my kindest regards, I subscribe myself.

Your Associate,
John P. Stoddard, M. D.

Editor of The Journal:

Attached is a clipping from the Berrien Springs Journal published October 14, 1926. It is rather interesting. You will note that 69 tonsillectomies were done at free clinic at a saving to the patients of $3,105.

You will note that a number of others were done whose hospital expenses were paid by various clubs; you will note that the RED CROSS NURSE reports a wonderful year and takes and receives a lot of credit, but you will not see where the medical profession received even a thank-you-ma'am though they, the poor suckers, did all the work for nothing. I have been intimate with this charity stuff for years but I never heard of any of these organizations asking a grocer or the coal man to furnish goods for nothing, or even for half price.

Once upon a time I had charge of a very large investment business. We had a number of sucker lists. The doctors sucker list was the prize list. It still carries the highest premium where such lists are under or are for sale. There is a reason for that.

Yours cordially,
E. M. Cunningham.

RED CROSS NURSE REPORTS
BIG YEAR'S WORK DURING 1926

Miss Emma Arnold, Berrien County Red Cross nurse, in a report submitted to the county chapter for the year from October 1, 1925, to October 8, 1926, for the nursing service reported that 4,061 school children in the county had been inspected, and cards sent to the parents of all these children as to conditions of teeth, tonsils vision and evidence of the communicable diseases. Sixty-nine children were operated upon for removal of tonsils and adenoids at free clinics, with a total saving to patients of $3,105. Thirty-two of the patients paid a total $150 to help cover the cost of expenses. The number of home calls was 314.

The Rotary club, of Benton Harbor and St. Joseph, paid hospital expenses for 34 children operated upon for removal of tonsils and adenoids.

The Kiwanis club, of Benton Harbor, paid for glasses for seven children in the county.

Buchanan Kiwanic club paid expenses for six children operated for removal of tonsils and adenoids.

Editor of The Journal:

I am enclosing an announcement of the tentative program that I am sending each of the county medical societies.

The doctors on the partial list of speakers have all promised to present subjects that will be of interest both to the specialist and the general practitioner.

I am sorry that the exact subjects to be presented cannot be announced and since this program is as complete as possible at the present time, I will appre-

ciate your giving it the best space available in your journal.

Your truly,
Highland Park Physicians Club,
Charles J. Barone,
Secretary.

Editor of The Journal:

Please read the following announcement at the next meeting of your society:

You are invited to attend the first annual clinic of the Highland Park Physician's club, to be held at the Highland Park General hospital, Thursday, December 2, 1926, from 8 a. m. to 8:30 p. m.

A partial list of the speakers is as follows:

Charles Gordon Heyd, M. D. of New York, N. Y.; Professor of Surgery at New York Post-Graduate Medical School and Hospital; Attending Surgeon of the New York Post-Graduate Hospital.

George W. Crile, M. D. of Cleveland Ohio; Professor of Surgery of the Western Reserve Medical College and Visiting Surgeon at Lakeside Hospital.

William Seaman Bainbridge, M. D. of New York, N. Y.; Surgeon of the New York Skin and Cancer Hospital and author of the text book, "The Cancer Problem."

John Osborn Polak, M. D. of Brooklyn, N. Y.; Professor of Obstetrics and Gynecology of Long Island College, and President of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons.

Irving White Potter, M. D. of Buffalo, N. Y.; Instructor of Obstetrics of the Medical Department of University of Buffalo, and Exponent of Version in Obstetrics.

E. P. Sloan, M. D. of Bloomington, Ill; Ex-president of Illinois State Medical Society, and an authority on Goiter.

James E. Sadlier, M. D. of Poughkeepsie, N. Y.; President-elect of the New York State Medical Society.

Arrangements are being made to obtain Dr. Smithies, of Chicago, Ill., who is one of the leading internists of the country.

The morning will be devoted to medical presentation and diagnosis of cases by internists. All visitors will be guests of the hospital at the noon-day luncheon. The dinner at 6 p. m. is to be held at the Detroit Golf club and the members of the county societies will be placed in groups at the tables. Following the dinner a lecture on some broad medical subject will be given, by a nationally known physician.

Please notify me of the number that will represent your county, so the proper arrangements can be made.

Yours truly,
Highland Park Physicians Club,
Charles J. Barone,
Secretary.

P. S.—Programs will be mailed when completed.

Editor of The Journal:

This is to officially inform you that at the meeting of the Council on Medical Education and Hospitals, which was held in Chicago, September 8, 1926, consideration was given to the premedical course in biology, such as that given at the Michigan State college at Lansing and which was recommended by the Michigan State Medical Society.

The secretary was instructed to inform you that inasmuch as no concerted effort had thus far been made to standardize courses for laboratory technicians, no definite approval could be made. Nevertheless, the council believed that the offering of this course was a move in the right direction.

Very sincerely yours,
N. P. Colwell,
Secretary.
Council on Medical Education and Hospitals.

Dear Doctor Colwell:

This acknowledges receipt of your official communication of October 4th. I note that you say that no standardization has been effected by your Council for Laboratory Technicians and upon that basis you cannot pass any approval upon the course of biology as given at the Michigan college at Lansing.

May I suggest that it is about time that your Council did establish some such standardization in order to meet pressing present day demands. Why wait 15 or 20 years? It seems it would be highly important that you should initiate this thing at the beginning and right now is the time to do it.

I am therefore officially requesting you, on behalf of the Michigan State Medical Society, that your Council at a very early date promulgate a standard course for Laboratory Technicians. May I also ask you to advise when your council can take up this question in order that I may present the answer to the Executive Committee of our society. I trust that within the next two months such a standard may be formulated.

Yours very truly,
F. C. Warnshuis,
Secretary-Editor.

Editor of The Journal:

Your letter of October 6th has been received.

The Council's routine, as you doubtless know, is to take up no special lines of study excepting where instructions to do so have been received from the House of Delegates. This has been necessary with the Council's limited personnel and budget. Of course, an abundance of information has been collected on numerous problems bordering on the practice of medicine so that we also have collected considerable data in regard to schools for laboratory technicians. The best place for laboratory technicians to secure practical experience seems to be the clinical laboratory. Inasmuch as heretofore no standard had been fixed for clinical laboratories it was too early to take up the more detailed subject of the essential qualifications of those who were to serve in the laboratory as technicians. The "Essentials of an Approved Clinical Laboratory" have now been completed, however, so that the way is open, not only for the study of laboratory technicians but also the standardizing of roentgen ray laboratories, which is another important work for the early future.

In regard to schools for laboratory technicians, we have considerable data on file. At the higher extreme, courses are available in several prominent universities wherein students can prepare themselves as laboratory technicians at the same time they are working for the B. S. degree. For example, at the University of Chicago several young women to my knowledge have prepared themselves to an extent whereby they will doubtless prove to be highly efficient. either as physicians' assistants or as technicians in laboratories. At the other extreme are some schools which are of doubtful reputability.

An added complexity in this particular field is the evident need for different grades of technicians just as different grades of nurses are now deemed essential. Consideration will have to be given also to the qual-

ifications of the teachers in the various institutions and the facilities for practical work. Most important and time consuming will be the gathering of data which not see any possibility, therefore, that a standard will serve as the basis for a set of "Principles Governing Schools for Laboratory Technicians." I do which would prove either useful or worthy of endorsement could be perpared in so brief a time as two months. An abundance of material has already been collected which will serve as a beginning of the work, however, so that the matter can be pushed to completion just as fast as possible with the other lines of work which are now demanding so much attention.

Meanwhile, I will discuss the contents of your letter with Dr. West to see whether we already have sufficient authority to proceed with the work. Copies of the correspondence, also, will be sent to the members of the Council for their information and subsequent action.

Very sincerely yours,

N. P. Colwell,
Secretary.

Council on Medical Education and Hospitals.

Editor of The Journal:

I have been reading with considerable interest the minutes of the last state meeting and particularly that portion which covers the discussion opened by Dr. William Cassidy (Wayne) referring to the handling of charity cases by the profession generally and the University hospital in particular. There appears to be a deplorable lack of information regarding this situation not only among physicians themselves and the general public, but also among the elected representatives of the public.

The situation is about like this: When a physician in any community gets tired of supporting a community burden out of his own funds—the worthy poor, the unworthy poor, the dead beat, the malingerer—as a matter of self defense he turns them over to his local township supervisor, the superintendent of the poor, and the probate judge, and they are sent to the University hospital for whatever attention, medical or surgical, is needed and always a PROLONGED convalescence. In our county each township supervisor, thinking to save his township money by throwing these cases on the state, falls in readily with this plan but, like the ostrich hiding its head in the sand, he is deceiving himself and the tax payers whom he represents. These cases are not paid for by the state but by each county and believe me, they pay through the nose. In my county, Cass, these bills never come before the Board of Supervisors and when presenting this matter before them a year ago I found that none of them had ever previously seen one of these statements. Practically every one of them were very comfortable in the thought that the state was paying all the bills.

The majority of the cases I have investigated have cost the county from 200 to 2,000 per cent more than necessary. This sounds like a wild statement but it is absolutely true.

For example, Patient X— a drifter, single, works only when absolutely necessary, always out of funds, is struck by a train, scalp wounds, arm and leg fractures, dirty cantankerous, in every way undesirable, is brought to a local hospital. Following anaesthetic threatens to drink his urine if nurse does not give him water, etc., is sent to Ann Arbor. Months and months and months, special nurses at $8 per day, special massages, $15 for an anaesthetic, (we are glad to get $10) and a prolonged convalescence. He re-enters the hospital of his own accord in September 1925 as an out patient, diagnosis central choreoretinitis, hyperopia and presbyopia and you know what that means. According to the last report I had of him he was still there Dec. 16th. Out patients are taken care of at the Jennings hotel at $3.50 per day plus, and the end is not yet. An expense to date of more than $2,000.

Others go from here to take neo arsphenamin, three shots here would cost the county $15 at Ann Arbor they cost railroad fare, three weeks at the Jennings, laundry, and perhaps a thermometer or two. I notice on all the bills rendered Cass county that thermometers sometimes average one a week for each patient. I have suspected that they were a part of the diet. I have too that the nurses have to pay for those they break, it may not be true, but they sure do eat up a lot of 'em.

I would suggest that the committee which was appointed to investigate go first to their county treasurer. There they will find all the data they need.

There is a sane, practical way of taking care of these cases at home and saving the tax payers in each county thousands of dollars besides leaving the money to circulate at home where it belongs.

There are other abuses, big ones, and they are growing in numbers every year. The man of property who cannot pay for medical, surgical, or dental care, but his children spectacles or orthopaedio appliances because he is buying several hundred dollars worth of new fruit trees, or a new automobile, or a new piano or radio, or perhaps he has to save his money to visit his relatives in Nebraska this fall, etc.

It is not a joke, it is not funny, it is a serious social situation and it affects the general practitioner particularly because it not only hits him professionally but he is also one of that group of sturdy tax payers who have to foot the bills for these wasters.

The only real joke in Cass County is the Cass County Medical Society. We figure on having a meeting or two every 25 years.

Yours very sincerely,

E. M. Cunningham.

State News Notes

Dr. and Mrs. J. W. Coman, Jr., are spending a few days fishing at Houghton Lake.

Dr. H. G. Berry is still away at his ranch in Alberta.

Dr. J. D. Bruce, Ann Arbor, addressed the Grand Rapids Rotary club on October 14th.

Dr. F. K. Lenfesty, has just returned from a trip by boat to Port Huron, Ontario, where he spent several days. He reports a fine time.

A dinner was tendered to Dr. J. H. Kellog, celebrating his 50 years of superintendency of the Battle Creek Sanitarium.

'Course you are going to attend the Post-Graduate Clinic at Ann Arbor on Nov. 11, 12, 13th. Do not forget to send in your enrollment.

The Highland Park Physicians club, Detroit, will

conduct a clinic at the Highland Park hospital on December 2nd.

Dr. W. J. Mayo, Franklin H. Martin and Andrew P. Biddle were the speakers at the dinner tendered Dr. Angus McLean of Detroit in celebration of his 40 years of practice in Detroit.

According to Dr. E. R. Weidlein, Director, Mellon Institute of Industrial Research, University of Pittsburgh, the firm of Johnson & Johnson, manufacturer of surgical supplies, New Brunswick, N. J., has established at the Institute Fellowship that will study the exact requirements of surgeons and other medical specialists in the way of sundries, with the joint aim of developing new supplies that are needed and of standardizing the products now in use. An investigation will also be made of the processes of renovating used supplies, and several other Industrial Fellowships of the institute will co-operate in devising satisfactory procedures.

Dr. Frederic H. Slayton (M. D., Rush Medical college) will be in direct charge of this comprehensive research. The Fellowship will be operated in a totally unbiased and independent manner, in accordance with the Mellon Institute system, and all its investigations will be conducted primarily for the benefit of the public. It is the plan to report the results in appropriate periodicals as the various phases of the studies are concluded.

In carrying on this work, Dr. Slayton and the Institute's Executive Staff invite the concurrence of all interested organizations. They are especially desirous of securing the close collaboration of hospital executives and of members of the medical profession.

SHORTENING QUARANTINE PERIOD FOR DIPHTHERIA CONVALESCENTS AND CARRIERS

Sanford Withers, John R. Ranson and Ethel D. Humphrys, Denver (*Journal A. M. A.*, Oct. 16, 1926), advocate the treatment of diphtheria carriers by means of the roentgen ray. A report is made on 54 cases so treated. Following suc htreatment there were only two febrile reactions, simulating an acute tonsillitis. Neither of these lasted more than one week, and each occurred in patients having pulmonary tuberculosis. As a rule, the treatments were given at the rate of from 50 to 100 milliampere minutes to each side of the head, weekly. Of 22 patients, 10 of whom were carriers, all became negative in an average time of 15.8 days after having been positive an average of 43.3 days. If the experimental cases and those patients having foci of infection other than the pharyngeal lymphoid tissue are eliminated, there are left 17 patients who were positive an average of 49.7 days who became negative are remained negative in an average of 9.5 days after the first roentgen-ray treatment was given. In the carriers, of which there were 42, all but three became negative during the three months observation period. This is a percentage of 85. If those carriers who had experimetnal small doses of roentgen ray are eliminated and those with a complicating pathologic condition also are disregarded, there are left 23 carriers with an average positive culture period of 60.9 days who became negative in an average of 10.9 days after the first roentgen-ray treatment.

CHRONIC ULCERATIVE COLTIS

Louis R. Buie, Rochester, Minn. (*Journal A. M. A.*, Oct. 16, 1926), reviews in detail the clinical history of this form of colitis. Chronic ulcerative colitis is a disease produced by a specific micro-organism, the lancet-shaped diplococcus of Bargen. The appearance of mucosa of the rectum and sigmoid is characterized by four phases during the active period: (a) hyperemia, (b) edema, (c) military abcesses and (d) military ulcers. A stage of remission or healing of the ulceration leaves a glazed, scarred (pitted) mucosa. The granular ulceration, pitted scars, and contraction of the lumen of the bowel are pathognomonic. The sigmoidoscope is the most valuable means of diagnosing the disease. Rarely will roentgen-ray examination or any other method reveal it when it cannot be diagnosed through the sigmoidoscope. Practically all cases can be diagnosed with this instrument alone. The most rational form of treatment consists in (a) the eradication of foci, (b) special diet and general supportive measures, (c) specific vaccine or vaccine filtrate as the curative agent, (d) local medication through the sigmoidoscope to cure the secondary infective type of ulcer, and (e) ileostomy only as a means of saving life.

POST-GRADUATE

CLINIC

UNIVERSITY

HOSPITAL

NOVEMBER 11, 12, 13

Our Society Business and Activities

HARVEY GEORGE SMITH
EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

PREVENTIVE MEDICINE! IS IT A MYTH?

Does the medical profession believe in preventive medicine is a question that arises in the mind of laymen, when they see the increasing number of hospitals, sanitoria, and especially when sickness comes into the home. They have forgotten the record made by the medical profession. Their comparisons are of the moment, the past is usually recorded in only, those good old days. Do they ask, who gave them pure drinking water, free from typhoid germs; who eliminated yellow fever with its claim of thousands annually through its mosquito carrier; who eliminated small pox, the pot marked face, from the civilized countries, diptheria, that in the past has taken its toll in large numbers among infants and younger generations; scarlet fever, now almost almost a vanishing spectre? These they have forgotten. Little do they remember of the surgery of the past and know of surgery of the present. The contributions of men of medicine have never been fully known. Where are Pasteur, Jenner, Osler, Reed and all the others? Recovery from disease now and always has been, you were lucky to become well, God was willing, you have a strong body, the fates are with you. And to add the mysterious and miraculous, the camp of the Fundamentalist are heralded the orders, beware of science—the destroyer of the human race.

Scientific medicine, has not yet been recognized by thousands of "doubting Thomases." Preventive medicine to them is like a dream that can never come true.

The doctor has failed to educate the public as he has continued to advance his science, to heal the ill and to relieve suffering. Preventive medicine will come only as the medical profession as a whole becomes the educator of the public. The process is one of teaching and demonstration. For the past year, even the past five years the medical profession within its own borders has discussed physical examinations of the apparently well. But the public thinks of a physical examination as an insurance examination, to benefit the insurance company and not the insuree. A natural thought, for the insuree never knows what has been found. The answer is, "accepted" or "rejected."

To prove the belief of the medical profession every doctor must himself enter himself into the Periodic Physical Examination program. Every year on his birthday he must have his annual inventory, he must have his instructors in health from one or two conferes. There are in the Michigan State Medical Society 3,000 members. They should this year have their physical examinations.

County Medical Societies are at work in this field. Thirty-four have already conducted special programs to advance the field of preventive medicine. Eight counties have organized themselves to conduct physical examinations for their own members. The societies that have taken this action are the following:

Macomb, Saginaw, Oakland, Lapeer, Lenawee, St. Joseph, Hillsdale and Branch. Three thousand doctors have had their physical examinations as the aim and goal for the medical profession of Michigan. Demonstration of belief of action and knowledge lead to education and conviction of the public.

COUNTY MEDICAL SOCIETY OFFICER CONFERENCES AND REPORT

Twenty-two County Medical Societies have been visited during the period from September 21 to October 15 for the purpose of study, determination of problems and difficulties, accomplishments and results attained during the past year. The counties visited are the following:

Oakland
Macomb
St. Clair
Huron
Tuscola
Lapeer
Genesee
Clinton
Monroe
Lenawee
St. Joseph
Cass
Berrien
Branch
Hillsdale
Mecosta
Osceola-Lake
Manistee
Mason
Oceana
Newaygo

One year ago all County Medical Societies were advised to adopt the Minimum Program as a basis for work. All of the above societies except Huron, Tuscola, Clinton, Cass answered that the program had been adopted and that it had proved valuable. These are some of the results obtained: Regular scientific meetings were being held so that the minimum requirement of 10 meetings would be met by the end of the year. Better and more regular meetings were conducted. Several societies Genesee and Mecosta, conducted programs each two weeks. All but six societies had conducted or agreed to conduct special programs on Physical Examinations of the Apparently Well. Eleven societies are at work through special committees arranging for the physical examination of each member by two fellow members. Under the heading of social and informal activities, one society, Oakland, held a joint meeting with the Bar Association, the Bar Association reciprocated and now the "Goose hangs high in Oakland County." Picnics were conducted by Oakland, St. Clair, Lapeer, Lenawee, St. Joseph, Berrien, Branch, Mecosta, Mason, Oceana and Newaygo Societies. All the societies that have adopted the Minimum Program found that a luncheon or dinner meeting was most satisfactory. Oakland and Genesee Counties organized one Scientific team each, and presented programs that were outstanding in character before the Macomb and Alpena County Medical Societies. Each of the other societies has agreed to organize a team and give a program for neighbor societies. More results will be accomplished in this field during the year to come.

Under the section, Public Health Information, the least amount of organized work has been done but at the same time much interest was expressed. Genesee and Mecosta County Societies lead all other societies in this activity. Genesee during the past year has conducted the six lecture per high school program in conjunction with the Extension Department of the university and Mecosta has had every member give talks before Parent-Teacher Associations high schools, and several other groups. Lenawee conducted one Association of Commerce and Boy Scout meeting and supplied a speaker on the Value of the Human Body. Several of the other societies have done limited work.

This record of the above societies is an enviable one and yet it does not represent a completed minimum program by any one society. Of all the counties visited Genesee leads with Mecosta a close follower. During the coming year each of the other societies have plans under way that should make them running mates in accomplishment with the best.

To further accomplishment and results, in each society the following recommendations were made:

1. That each society organize a program committee with the pesident and secretary as members or the president appoint a special committee with the secretary as member. Such a committee to meet each two or three months for the purpose of developing a regular program in Post-Graduate education which will be of direct benefit to the membership . Such activity is to replace the usual temporary arrangements that are indulged in by county societies, or meeting to meeting plans. Two members are to report their most interesting cases at each meeting. Such an organized plan for the conduct of the scientific part Minimum Program will make for constructive Post-Graduate Instruction each year.

2. A special committee appointed by the president is to organize the program for physical examinations of the members and co-ordinate with the Health Education Committee plans for lectures in the special field of peventive medicine.

3. Each society was advised with the exception of Genesee and Mecosta to appoint a special committee to study plans and methods for presenting to the laity of the counties information on health, preventive medicine, history of medicine, biographies of men like Pasteur, Jenner, Osler, Reed and Koch. Further, these committees are to secure speakers for various local organizations and in co-operation with the high schools and where possible with the Extension Department of the university present a program of six lectures before each high school student group in the respective counties. Eight committees were appointed at the time of visits.

4. Secretaries were requested to give publicity to local newspapers on activities of the County Medical Societies and to report all accomplishments to the state office.

The officers of the societies visited, especially those of societies with accomplishment, added suggestions that are valuable to the conduct of society programs. Lenawee county claims that a program of one hour duration will maintain interest whereas a long drawn out program reduces interest and also attendance.

A number of the society officers stated that Scientific Programs to be successful must start on time and conclude within a specified time. In order to give responsibility to members and at the same time use the

practical experience of the members for the benefit of all members, Lenawee for the first time has agreed to have two members discuss their most interesting case reports, at each meeting. Each report to be limited to 10 minutes.

Observations—Constructive County Society Programs result when the president and secretary take definite interest in the work of the society. Further, when appointed committees assume responsibilities of their offices, meet, adopt a program and then work the program, and further, when all activities run on schedule and not with indifference and from one-half to an hour behind schedule. The Minimum Program provides the most satisfactory basis for county society accomplishment that has yet been developed.

Those societies where jealousies exist and fellowships have vanished are not conducting an organized program of any kind what so ever. A friendly attitude, the county society interest first spirit provides the membership with success in the profession and respected relationship with the public and advances scientific medicine.

THE MANISTEE POST-GRADUATE CONFERENCE

The Post-Graduate Conference at Manistee on Thursday, October 14 was the third to be held in the Ninth Councilor District since the inauguration of the program of Post-Graduate Conferences in the autumn of 1924. Thirty-eight doctors were present representing all the county societies of the district. The honor for attendance this year, went to the Grand Traverse, Leelanau Society. Fourteen of the members recorded present after driving 75 miles. Mason county was at the bottom of the attendance column, being represented by only three members. Due credit must be given to the Councilor Doctor Ricker who with a car filled to capacity with Cadillac doctors lost his way in the "Skiberians," but located himself by the moss on the north side of a jackpine and rolled in to the meeting about a half hour late. Doctor Fairbanks the first one to arrive said, "You know this is great work you are doing. These Post-Graduate Conferences are the best medical meetings I have ever attended. I wouldn't miss one unless I were sick. I am busy, too, I am mayor of our little city of Luther, am on the Board of Supervisors and have a big practice, but in spite of all this I will always be on deck when the Post-Graduate Conference is to be held. I have been at all three so far." The doctor who is interested in the advancement of his science is always present, unless he is ill or an emergency keeps him away. Doctor Nicholson from over in Oceana county was here though he did not receive a program. He does not belong to the district was the reason, but it is an illustration of the fact that the active men in the medical profession are ever alert to advance their own science. The hand writing on the wall indicates that the inactive members would do well to become active.

And Grand Traverse was right on the job when they said, "the next conference will be held at Traverse City."

The following doctors attended and the following program was presented:

MICHIGAN STATE MEDICAL SOCIETY
POST-GRADUATE CONFERENCE

Manistee—October 14th, 1926, at Hotel Chippewa

10:15 Opening Statements—Otto L. Ricker, M. D., Councillor, Chairman.

10:30 Prenatal and Postnatal Care—By Member of Obstetrical Staff, University Hospital, Ann Arbor.

11:00 Peptic Ulcer—Medical Management, Burton R. Corbus, M. D., Grand Rapids.

11:30 The Acute Emergencies of the Eye—John R. Rogers, M. D., Grand Rapids.

2:00 Feeding the Abnormal Infant, Homer T. Clay, M. D., Grand Rapids.

2:30 Common Laboratory Methods and Practical Values in Diagnosis—William LeFevre, M. D., Muskegon.

3:00 Modern Obstetrics—By Member of Obstetrical Staff, University Hospital, Ann Arbor.

3:30 - 3:40 Recess.

3:40 Contagious Diseases—Diphtheria and Scarlet Fever—Homer T. Clay, M. D., Grand Rapids.

4:10 The Appraisal of the Tonsil—John R. Rogers, M. D., Grand Rapids.

4:40 The Interpretation of Abnormal Blood Pressures and Treatment—Burton R. Corbus, M. D., Grand Rapids.

REGISTER

Name	Address
Earl Fairbanks	Luther
H. D. Robinson	Manistee
H. A. Ramsdell	Manistee
L. Swanton	Traverse City
F. P. Lawton	Traverse City
A. Holm	LeRoy
G. W. Brooks	Tustin
D. A. Jamieson	Arcadia
H. MacMullen	Manistee
A. A. McKay	Manistee
A. G. Burwell	Spring Lake
J. F. Carrow	Cadillac
T. Y. Kimball	Manton
Otto L. Ricker	Cadillac
E. F. Sladek	Traverse City
F. Holdsworth	Traverse City
E. L. Covey	Honor
J. Waldemar Hansen	Manistee
E. B. Minor	Traverse City
C. C. Jensen	Manistee
J. J. Brownson	Kingsley
J. H. Nicholson	Hart
J. W. Gauntlett	Traverse City
F. G. Swartz	Traverse City
E. S. Thirlby	Traverse City
H. B. Kyselka	Traverse City
G. A. Holliday	Traverse City
H. B. Hoffman	Ludington
Lewis Ramsdell	Manistee

GUESTS

Mrs. A. G. Burwell	Spring Lake
Dorothy F. Johnston, R. N.	Cadillac
Mrs. Ed. Talbot, R. N.	Manistee
Miss Hilda Jean, R. N.	Manistee

County Society News

GRATIOT-ISABELLA-CLARE COUNTY

The October meeting of the G. I. C. was held in the Alma City Hall, Thursday October 7 at 7:30.

Fifteen members and two visitors were present to hear Doctor W. H. Marshall talk on the Pediodic Examination of the Apparently Well. The doctor gave us an instructive and practical talk.

E. M. Highfield,
Secretary.

NEUROLOGY AND PSYCHIATRY SOCIETY OF DETROIT

The 18th Annual Meeting of The Detroit Society of Neurology and Psychiatry, was held at the Hotel Statler, Thursday evening October 7th. This was the first meeting of the year 1926-27, and those in attendance evidenced their interest by an instructive discussion following the paper, "A Case of Questionable Encephalitis," by Dr. Groves Blake Smith. The address of the retiring President, Dr. Thos. J. Heldt concluded the program.

Dr. Theophile Raphael of Ann Arbor was elected president for the year 1926-1927; Dr. Irvin H. Neff, vice president; and Dr Groves B. Smith, secretary and treasurer. Dr. Thos. J. Heldt and Dr. J. L. Jacoby were elected councillors at large. The next meeting will be held the first Thursday in December.

ALPENA COUNTY

The regular meeting of the Alpena Medical Society was held August 19th at Atlanta. Drs. McKinnon and Wood acting as hosts. After a delightful dinner in the parlors of the Community church Dr. McKinnon, acting as chairman, introduced the speaker of the evening, Dr. R. W. Wood, of Comins, who gave the paper of the evening. Dr. Wood, for many years has written articles for the State Medical Journal entitled "From the Jackpines." He fully lived up to his reputation as a man of independent thinking. His many years of medical practice in the sparsely settled countries has not caused his mental enthusiasm to wane. His observations on the present trend of medical practice were trite and often side-splitting. Dr. Wood, at the beginning of his paper presented the Society with several choice volumes which were to act as a nucleus to a medical library. He also presented our President, Dr. Bell, with a hammer which he introduced the doctor to use in place of a gavel to keep in subjection any inclined to be unruly. The hammer was also to be used in breaking up certain practices which had crept into the practice of medicine. He was particularly witty in his description of the activities of certain health agencies.

Any of the outside societies desiring a refreshing relief from ultra scientific medical papers can have the treat of their lives if they can arrange with Dr. Wood to give this paper before their Society.

C. M. Williams, M. D.
Secretary.

GENESEE COUNTY

The Woman's hospital, Flint, Mich., is having a new addition built. There will be 12 private rooms and a delivery room. This will make a total capacity of 67 beds, 47 for adults and 20 for babies.

Drs. Merritt and Chambers formerly of the department of health in the capacity of city physicians will enter private practice this month and will be limited to interne medicine.

Dr. B. I. Gutov, Michigan Medical Department, 1925, has been appointed president physician at Hurley hospital.

Dr. and Mrs. David Jickling spent July and August in Europe visiting clinics.

Dr. Max Burnell spent June, July and August in Europe on a clinical tour conducted by the American College of Surgeons.

The interne staff of Hurley hospital consists of Drs. D. F. McArthur, Queens college, Canada 1926. F. B. Legally, Michigan 1926, and E. C. Hanson, Michigan 1926.

The New Hurley Hospital

The completed plans of the hospital are to be ready, according to contract, December 1, 1926.

The hospital is to be 10 stories high, constructed in the shape of a huge Greek cross. The first unit consists of the two eastern wings and the center administration tower. The first unit will house 280 patients and the second unit will quite likely bring the capacity of the hospital over 500. The cost of the first unit will be slightly less than $1,000,000.

The building will be the Gothic type, built of reinforced concrete and fireproof throughout. The exterior will be of brick with stone trimmings.

It is expected that bids will be taken during the month of December and ground broken about the first of the year 1927.

HOUGHTON COUNTY

The Houghton County Medical Society held its regular monthly meeting at the (—?—?—?—) club, Calumet, Tuesday October 5th, with 21 members present after reading of the minutes and allowing of bills, Dr. A. F. Fischer, recently elected vice president of State Medical Society and dean of St. Joseph Hospital, read a very fine paper on "Human Bookkeeping."

Dr. Fischer's paper dealt with the problem of annual physical examinations and was especially of interest due to the very interesting figures connected with the Preventorium Clinics.

We will send Dr. Fischer's paper to you for the Journal and expect to print it in the local papers. The society discussed this paper and the members and families are reminded of the annual week Nov. 1st to 7th for physical examinations.

Dr. G. M. Waldie. newly appointed resident physician at the Houghton County Sanitorium next gave a talk on "Relationship Between the Medical Profession and the Sanatorium." He outlined the work of the Sanatorium and presented a case report blank which was used in the work. Dr. Waldie expects to modernize the Sanatorium and increase its usefulness. Dr. Waldies's talk was well received and we welcome him to our society of which he expects to become a member.

We were very fortunate to have with us Dr. R. L. Kahn of the State Laboratory who in his usual pleasing manner gave us a very instructive talk.

Dr. Kahn reviewed the laboratory work in general urging the necessity of having and using the various tests. He also gave us some very interesting data on the comparative results of seven laboratories that have been testing out the Kahn test in comparison with the Wassermann and various modifications of it. Dr. Kahn answered many questions and gave us some very interesting facts.

Society then adjourned to lunch.

Respectfully
G. C. Stewart,
Secretary-Treasurer.

MACOMB COUNTY

The regular monthly meetings of the Macomb County Society were resumed, after the summer recess, when 25 members of the Society gathered together October 4th at the Colonial hotel, Mt. Clemens, for a noon-day meeting.

About a week previous to this we had a visit from Harvey Smith, who informed us that as a Society we ranked rather low and needed rejuvenating. In order to restore the spirit of youth he arranged a very excellent program for us, and was rewarded by a very fine turnout.

Luncheon was served at 12 o'clock followed by the business meeting and program.

The minutes of the previous meeting were read and accepted.

Report of Dr. C. E. Greene, delegate to the state convention, was heard.

Following this the executive secretary spoke for a few minutes, stressing the relationship of the County Medical Society to the other professions in the community, also how a Society could function as a means of educating the public in scientific medicine. He spoke of many ways in which this could be done such as educational talks before high school students, Parent-Teacher Associations, luncheon clubs, etc., by properly qualified speakers. This matter of public education he stated should be considered a part of the work of each County Society program—the securing of speakers, etc., being the work of a special educational committee made up of members of the Society.

The Manuals of suggestions for the conduct of Periodic Examinations of Healthy Persons, were distributed to those present, and following this Dr. W. H. Marshall of Flint, addressed the Society on the subject of "The Periodic Examinations of the Apparently Well."

Dr. Marshall's excellent talk which was full of interesting and valuable ideas, so brought home the importance of periodic health examinations that a motion was carried at this time, authorizing the president to appoint a committee whose duty it would be to arrange for a health examination for each member of the Society—by two of his fellow physicians.

The meeting closed with a rising vote of thanks to Dr. Marshall and Mr. Smith for their efforts in making possible this fine program which we all enjoyed so much.

Yours very truly,

Alfred A. Thompson,
Secretary

GRAND TRAVERSE-LEELANAU COUNTY

You have not heard from this live society for some time, but we are glad to give a report of ourselves for the last three months. Up here, in the "Heart of Nature's Playground," the doc's are unusually busy during the resort season; yet they have found time for a few intellectual and social feasts. In July we were royally entertained by Dr. Victor C. Vaughn at his beautiful summer home at Old Mission. His two sons, Drs. Henry and Walter, were present, and both furnished very able papers. Mrs. Vaughn filled us to overflowing with fried chicken and everything that goes with it. We claim Dr. Vaughn as one of our own, for he has made this neck o' the woods his summer home for more than 30 years. Needless to say the day and evening with Dr. Vaughn was joyfully and profitably spent.

Our August meeting was held at Dr. Kyselka's cottage on the shore of Long lake, seven miles from town. We were all there, for the meeting was both business and social—mostly social. Any Bohemian dish that Mrs. Kyselka overlooked was supplied by Mrs. Sladek. (Two fine cooks who know how to make kolaches and saurkraut.) For many reasons it was difficult to get down to real business, but we did manage to elect Dr. Covey of Honor and Dr. Gordon of Maple City, into full membership. Of course we are going out there again—next summer.

Our September meeting was one of the best ever. Dr. C. E. Boys, of Kalamazoo, was the specially invited guest, and he brought a world of good things for us. In the evening he gave a fine illustated talk on Goitre, after which he entertained us with a moving picture of his hunting trip last year to the Canadian Rockies. This was an hour of real pleasure. Next morning Dr. Boys did five cases of Thyroidectomy, also a complete hysterectomy. A good clinic.

At the Post-Graduate conference held in Manistee October 14th, 11 of the Traverse City medics drove over, leaving only two in town. In the meantime our patients had a good chance to get well.

At this writing our president, Dr. Sladek, is taking a Post-Graduate course in Chicago, Dr. Thrilby is spending his customary week-end at the Ann Arbor football game, and Dr. Swanton is on his usual weekly trip to the graveyard at Edenville, where he says there is room for all of us when we *shuffle off this mortal coil.*

G. A. Holliday,
Secretary.

CLINTON COUNTY

The Clinton County Medical Society opened the 1926-1927 with a splendid meeting both from the standpoint of attendance and benefits obtained. The meeting was held at the offices of Drs. Hart, Hart, Luton and Foo, St. Johns, Mich.

The meeting was called to order by President Taylor of Ovid. The minutes of the previous meeting were read and approved. Election of officers for the coming year was in order, and the following officers were elected: President Dr. E. Hart, St. Johns; Vice-President Dr. H. D. Squair, St. Johns; Secretary-Treasurer, Dr. T. Y. Ho, St. Johns, (re-elected).

Dr. V. C. Abbott, who recently became associated with the firm of Hart, Hart, Luton and Foo, tendered his formal application for admission to membership in the Clinton County Medical Society. His application was ballotted and accepted.

After the business meetings we were favored with a most excellent and timely topic. "Fractures" by Dr. Carl Badgley of University Hospital, Ann Arbor. Dr. Badfley presented his subject in such a practical manner, illustrating his talks with slides as he went along, that all those present were thoroughly convinced that it was well worth the time to come and hear him, even from distances of 40 miles and upwards.

Dr. Badgley informally pointed out the more common and sometimes the more difficult fractures that the everyday physician encounters in his practice, and demonstrated the easier way of manipulating these fractures with the hope of obtaining better approximation of the fragments. His paper was discussed by Dr. George Curry of Flint, after which all the other doctors from Owosso, Flint and Ann Arbor also informally partook in the discussion of this very im-

portant subject of fractures. Dr. Badgley laid especial emphasis on the use of the X-ray examination of all cases of fractures, both before and after manipulation, in order to avoid difficulties arising in the law courts.

Our new district councillor, Dr. Henry Cook of Flint then outlined to us what we, as members of county societies should do in order to bring the public into closer understanding and friendliness with the medical profession. To this end he suggested the idea of a mixed meeting, to which the public should be invited to participate in the discussion of various health topics and public welfare in general.

The meeting of the society was then adjourned until the next meeting which will be held on Nov. 4, 1926 at 6:30 p. m. at the Steel hotel, St. Johns, Mich.

KALAMAZOO COUNTY

A regular meeting of the Kalamazoo Academy of Medicine was held at the Kalamazoo Country club on the evening of September 21, following a delightful dinner served in the club dining room.

The minutes of the June meeting as printed in the Bulletin were read and approved; Dr. R. J. Hubbell acting as secretary pro tem.

Dr. Gregg, chairman of the social committee, reported on the status of their work in connection with the equipment for serving meals in the Academy rooms. Dr. Light gave a more detailed report from blue prints stating that the cost would exceed by $500 the amount that was now in the treasury. Dr. Crum moved that the social committee be extended a vote of confidence and be empowered to complete plans for the installation of the equipment. Dr. Thompson seconded the motion; carried.

The applications for regular membership of Dr. Roscoe F. Snyder and associate membership of Dr. L. A. Kenoyer were voted on favorably by the Academy. Dr. Ray T. Fuller of this city filed application for regular membership and Dr. James H. Swan of Marcellus filed application for associate membership.

Dr. Shepard, chairman of the campaign committee, reported a very quiet and successful campaign at the state meeting at Lansing; the result being that Dr. Jackson was elected president of the state society and Dr. Boys was elected as councillor from this district.

Dr. McNair from the president's chair made a few remarks of sincere appreciation for the work of Dr. Jackson in the state society. Dr. Jackson responded by expressing his gratitude to the Academy and Dr. A. H. Rockwell for giving him the opportunity to serve in the state society. He spoke of the new work the society was taking up for enforcement of the Medical Practice act, the legislative policy being one of combined interests of all organizations interested in the health of the community.

Dr. Crum, chairman of the Greater Kalamazoo committee, gave notice of the parade that was to be held October 5th and expressed the desire that a float representing the Kalamazoo Academy of Medicine be entered. Dr. Bennett moved, Dr. Crane seconded, that the proposition be accepted and that Dr. Crum be instructed to carry the plans to completion. The motion was carried after discussion by Drs. Jackson and Shepard.

The roll was called of all members present and each one responded with a very interesting case report. Adjournmnt.

R. J. Hubbell.

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

MODERN CLINICAL SYPHILOLOGY: John H. Stokes, M. D., Professor of Dermatology and Syphilology in the School of Medicine, University of Pennsylvania: Professor in the Graduate School of Medicine, University of Pennsylvania. Octavo of 1444 pages with 885 illustrations and text figures and more than 200 detailed cases histories. Cloth $12 net. Philadelphia and London. W. B. Saunders company, 1926.

This is the most exhaustive text on the subject existant. It is most complete in all of its discussions and thorough in evaluating all the factors involved in this disease. Illustrative case histories materially enhances the text. The consideration given to late syphilis is an outstanding feature. As a digest of the subject it assumes a foremost position in our literature.

THE MEDICAL CLINICS OF NORTH AMERICA (Issued serially, one number every other month.) Volume X, Number II, (Philadelphia Number, September, 1926.) Octavo of 217 pages with 16 illustrations. Per Clinic year, July 1926 to May 1927, Paper, $12; Cloth $16 net. Philadelphia and London. W. B. Saunders company.

THE SURGICAL CLINICS OF NORTH AMERICA: (Issued serially, one number every other month.) Volume VI, Number III (Chicago Clinic Number—August 1926.) 324 pages with 101 illustration. Per Clinic year (February 1926 to December 1926.) Paper, $12; Cloth, $16 net. Philadelphia and London. W. B. Saunders company.

THE JOURNAL

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ON

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Original Articles

NEUROLABYRINTHITIS OF FOCAL INFECTION ORIGIN IN A CASE WITH A PLUS-FOUR WASSERMANN

GEORGE W. MACKENZIE, M. D.
PHILADELPHIA, PA

The clinical picture of Neurolabyrinthitis of Focal Infection Origin and that of syphilis resemble each other sufficiently to warrant the closest kind of study to differentiate them. In looking for the etiologic factor in neurolabyrinthitis we cannot accept as conclusive the finding of a positive or a negative Wassermann alone; for cases of neurolabyrinthitis syphilitica exist, especially of the latent form, with a negative Wassermann. On the other hand, neurolabyrinthitis from a focal infection can exist in the presence of a plus-four Wassermann without the syphilitic virus contributing any appreciable influence; witness the case to be cited. The best proof of precision in the consideration of cause and effect is the promptness and permanency of the improvement or cure* of a disease that follows the removal of the causative factor in question. In no case is this more true than in neuralabyrinthitis.

Concerning the subject of neurolabyrinthitis, I have already written quite freely; notwithstanding, there still remains much to be said. The most gratifying results thus far obtained by him have been in cases of neurolabyrinthitis of focal infection origin referred. quite frequently, by other otologists because of vertigo and nystagmus that prompted the suspicion of some more serious intracranial condition. Such cases are by no means rare. The one to be reported is of that kind.

The case, S.W., male, age 52 years, physician, was first seen by the writer February 20, 1926.

History—Between the age of 16 and 17 years the patient went through an attack of pneumonia with empyema. In the year 1918 he had an attack of "Flu." He has suffered no other illnesses excepting slight colds. About six weeks ago he had laryngitis, with infection in the nose and throat, which cleared up under treatment in a few days. His present illness began about three weeks ago with dizziness. He did not think it very important at the time and continued working very hard, as he had been doing for two weeks before. The dizziness not only continued but became more severe. After four days he began to ease up on his work. One evening there developed severe headaches which lasted for about a half hour. His partner tested the blood pressure and found it 100 systolic. The diastolic pressure was not recalled. The patient and his partner decided that the illness was due to overwork. However, he continued to work, but not so hard, for about three more days. The dizziness increased, but was less evident when he was quiet and sitting still. After a few more days he found that moving the head to the left side increased the dizziness very much. He then called in an ophthalmologist, who discovered that the eyes were normal with the exception of a "rotary nystagmus to the right." The optic discs were observed to be normal as well as the blood-vessels in the fundi. His physician examined him later and "found intense congestion of the mucosa of the nose and the Eustachian tube blocked on the left side." His diagnosis was "acute labyrinthitis." Following this the patient claims to have had a specialist in internal medicine and a neurologist to examine him. At that time it was claimed the Romberg was normal. There was slight incoordination in the muscles of the legs. No headache and no pain of any kind since the beginning of his present illness except that already noted; diagnosis of acute labyrinthitis. The treatment of the nose was continued, and after a week the left Eustachian tube was catheterized. The feeling in the ear today, February 20th, 1926, is the same as it has been for the last two weeks. The ear feels as though it was "blocked." The hearing has been variable, at times "less than 50 per cent, and at other times considerably better." It has not been normal at any time. His voice sounds to him as though it was far away. The nystagmus has gradually improved. On Monday last (five days ago) another neurologist made an examination and diagnosed a "thrombus in the cerebellum," and spoke of having seen "one case in Boston similar to his with a negative Wassermann." The Wasserman was then taken and found to be plus four. Before this the unanimous opinion was that of acute labyrinthitis due probably to infection of the

* The word "cure" cannot be made to apply to all cases. The reason is evident when we consider that long-lasting toxemias lead to chronic plastic inflammation with its concomitant metaplasia of the higher developed sense epithelium. Therefore, the more tardy we are in removing the source of the toxemia, the more fixed the pathologic changes have become when the results take on more the form of "improvement" than of complete "cure." The complete cures occur in those cases only where the toxemia has not produced changes beyond those of congestion or mildly acute serious inflammation.

nose and throat brought on by overwork. It was suggested that a few weeks' vacation in Florida would fix him up, and transportation to and accommodations in Florida were arranged. Antisyphilitic treatment was started on Wednesday following the examination by the Boston neurologist. About this same time it was decided to leave the whole matter, including the labyrinthine tests, in the hands of the writer.**

At the beginning of his present illness his head was X-rayed, but nothing abnormal was found. Last May (nine months ago) he was sick for two weeks with what was pronounced cholecystitis, but which the patient now believes was some syphilitic manifestation. For the past two years he has been a "teetotaler." Before that time he went through a two months' siege of drinking, the blame for which he put onto some heavy financial losses. Prior to that time he was but a very moderate drinker.

The teeth had been X-rayed often (every six months). The last time was at the beginning of his present illness. He is aware of the presence of several "dead" teeth, but denies having any pyorrhoea. The dentist advised him to keep the teeth for a while. Temperature taken on this first visit was 99.2°F.

The functional hearing test findings elicited at this first visit are as follows:

Right Ear		Left Ear
Short 5″	Weber	
Short 7″	Schwabach	Short 10″
+ 40″	Rinne	+ 45″
Short 13″	Air	Short 18″
Short 40″	C_1	Short 60″
Short 5″	C_4	Short 8″

Otoscopic examination of the right ear reveals a slight amount of cerumen, requiring removal before a satisfactory inspection of the deeper structures could be made. The drum membrane is intact, brilliant, of normal translucency, allowing the long process of the incus to be seen. There is no pathologic retraction; the mobility of the membrane is normal with the Siegel instrument. With Politzer inflation the membrane comes out over a large area without overlapping the Stria malleolaris, and returns promptly to its primary position.

Otoscopic examination of the left ear presents no cerumen or other obstruction in the canal to interfere with the observation of the drum membrane. It is intact, brilliant and normally translucent, allowing the long process of the incus to be seen. The mobility of the membrane is normal with the Siegel instrument. With Politzer inflation the membrane comes out over a large area without overlapping the Stria, and returns promptly to its position.

Examination of the nose shows the mucous membrane to be quite red on both sides. There is a pronounced deflection of the nasal septum to the right side, with a large spine along the suture line on the same side. After shrinking the mucous membrane with cocaine, the left middle turbinate becomes visible. There is a free space between the left middle turbinate and the lateral wall and between it and the septum. The right middle turbinate also becomes visible after shrinking. It appears to be undersized because of the septal deflection to that side; likewise, the right inferior turbinate is undersized. There is a compensatory hypertrophy of the left inferior turbinate, together with a slight hyperplasia of the mucous membrane along its inferior margin and posterior end. There is no gross evidence of accessory sinus disease by anterior rhinoscopic examination.

Examination of the throat reveals a small papilloma at the base of the uvula on the left side. Both tonsils are submerged, and from the crypts cheesy deposits can be expressed with the pillar retractor. There is a slight secondary catarrhal pharyngitis present.

Examination of the teeth shows very evident pyorrhoetic resorption. The upper right first molar is carious, and there are several other very questionable teeth which warrant a careful X-ray examination.

Examination for spontaneous nystagmus: When the patient looks to the extreme right side there is a fairly pronounced nystagmus to the right. When he looks to the extreme left side there is a fairly pronounced nystagmus to the left. However, there is this difference: The nystagmus to the right side is preeminently horizontal in character; whereas the nystagmus to the left side is more rotary, with the same angle leviation of the eyes. Upon looking straight ahead the presence of nystagmus to the right side is doubtful.

Galvanic Test:

Right Ear	Left Ear
Kathode 4½ Ma.	Kathode 9 Ma.
Anode 10 Ma.	Anode 10 Ma.

Turning test, with the head erect: After ten turns to the left side there follows a horizontal nystagmus to the right, lasting for 12 seconds. After ten turns to the right side there follows a horizontal nystagmus to the left, lasting for 9 seconds.

With the head inclined 90 degrees forward: After ten turns to the left side there follows a rotary nystagmus to the right, lasting for 11 seconds. After 10 turns to the right side there follows a rotary nystagmus to the left, lasting for 5 seconds.

The patient was then sent to Dr. B. M. Wagenseller for a differential blood count and urinalysis, and to Dr. J. W. Post for an X-ray examination of the teeth. He was put on mercurial injections, and told to report in two days.

The blood findings, under date of February 20, 1926, were as follows: Hemaglobin 90 per cent; red blood cells 5,180,000; white blood cells 12,000; polynuclear 53 per cent; small lymphocytes 39 per cent; large lymphocytes 5 per cent; eosinophiles 3 per cent.

Urinalysis report by Dr. Wagenseller February 22, 1926, reads: Color yellow; reaction acid; spec. grav. 1031; albumen negative; sugar negative; indican normal; epithelia present; oxalates present; urates present.

The X-ray examination of the teeth revealed the following findings: The upper left third molar, upper left first molar, upper left second bicuspid, upper right second bicuspid and the upper right second molar are all pulpless teeth, showing evidence of chronic periapical disease. The lower right remaining molar is a pulpless tooth showing no evidence of canal filling in the distal root. This tooth should be looked on with marked suspicion, in view of all the other changes. The distal aspect of the root of the tooth is denuded of the alveolar process for about two-thirds of its length. There is a large area of caries beneath the filling at the neck of the tooth. There is also an area of caries on the mesial aspect. The entire alveolar process shows marked pyorrhoetic changes about the lower central and lateral incisor region.

February 22, 1926: The patient reports for the second visit. He thinks his hearing has grown worse since the last visit. He also complains of more noises on both sides, but worse on the left. He complains, too, of a "stuffed up feeling" in the left ear.

The functional hearing tests were repeated on this

** The very complete history up to this point is the result of careful observation on the part of the patient. He was asked to take his time and write out the history fully. It was copied almost verbatim. The remaining history was elicited by questioning the patient.

visit, first by myself and then by Dr. A. V. Mackenzie. The average findings for the tests are as follows:

Right Ear		Left Ear
Short 13″	Weber	
Short 7″	Schwabach	Short 18″
+ 39″	Rinne	+ 18″
Short 8″	Air	Short 40″
Short 40″	C_1	Short 90″
Short 5″	C_4	Short 8″

Examination for spontaneous nystagmus: Horizontal nystagmus to the right when the patient looks to the extreme right. Mixed rotary, horizontal nystagmus to the left when he looks to the extreme left. The nystagmus to the right appears to be a shade more pronounced than that to the left. There is a doubtful nystagmus to the right when the patient looks straight ahead.

Galvanic Test repeated at this visit gave the following results:

Right Ear	Left Ear
Kathode 5 Ma.	Kathode 9 Ma. No reaction
Anode 9 Ma.	Anode 9 Ma. No reaction

He complains of his mouth being quite sore, due no doubt to the combined influence of extractions and intensive mercurial treatment.

The report on the bacteriological examination made by Dr. Wagenseller under date of February 27, 1926, reads as follows: Four teeth were cultured—upper right and left bicuspids; upper right and left molars. Growth was obtained from three, upper right molar giving nothing. Growth in all tubes was the same, as follows: Staphylococcus albus predominates; gram positive bacilli present; gram negative bacilli present.

On March 1, 1926, the patient reports that his hearing is slightly better, but is still "thick." The mouth feels quite sore, for which he was referred to Dr. Lloyd Strohm (Syphilologist) of Philadelphia.

March 2, 1926: Dr. Strohm reported that he had discontinued the mercurial inunctions and instituted treatment with bismuth injections. From this time on, Dr. Strohm took charge of the treatment of this feature of the case. The patient reports that the vertigo is a little better today. He says that he can "walk better today than any day yet." The stopped up feeling in the left ear still continues. The lower right molar which the patient looked upon with suspicion has not been extracted.

March 12, 1926: The patient reports that after each extraction there is a temporary aggravation of his vertigo. The patient was so emphatic about this statement that it appears underscored in the original records. Owing to the extensive pyorrhoea, in addition to the other pathologic changes noted by Dr. Post, it was deemed best to make a thorough clean-up of both upper and lower alveolar processes. Furthermore, it was considered advisable not to remove more than three teeth at one sitting, and then watch carefully for excessive reaction for a day or two following, before proceeding with further extractions. The worst appearing offenders were left for the last. The order of the extractions and after treatment, taken from the records of the Exodontist, Dr. Cos Leffmans, is as follows:

February 23, 1926: Extraction of three teeth; upper left first bicuspid, upper left first molar and upper left third molar. Apical abscesses were curetted thoroughly and cultures taken.

February 24, 1926: Two teeth were extracted; upper right first bicuspid and upper right second molar; thoroughly curetted sockets.

From February 25, 1926, until March 4, 1926, the sockets of the extracted teeth were syringed daily. On the latter date one tooth, the lower right third molar, was extracted and pyorrhoetic abscess drained and packed with gauze.

March 5, 1926: Treatment of gingiva with chlorodone.

Until March 10, 1926: Conservative treatment; besides three extractions with thorough curettment—the lower left lateral incisor, canine and first bicuspid.

March 12, 1926: Three extractions, with thorough curettment—the lower right cuspid and first and second bicuspids.

March 17, 1926: Two extractions, with curettment —lower left second bicuspid and first molar.

March 18, 1926: Four extractions*** were made, with thorough curettment. The differential blood count was made one hour before, again on the following day (March 19), and again on March 20, reports of which appear elsewhere.

March 26, 1926: Extraction of two supernumerary teeth. After this date there followed daily treatment of the sockets.

April 9, 1926: Removal of sharp corner of process from the region of the upper left cuspid.

The blood count made prior to the four extractions of March 18 netted the following findings: Hemaglobin 98 per cent; red blood cells 4,680,000; white blood cells 13,200; polynuclear 54 per cent; small lymphocytes 35 per cent; large lymphocytes 6 per cent; transitional 1 per cent; eosinophiles 4 per cent.

The blood count made the day after was as follows: Hemaglobin 86 per cent; red blood cells 4,600,000; white blood cells 10,400; polynuclear 55 per cent; small lymphocytes 29 per cent; large lymphocytes 7 per cent; transitional 1 per cent; eosinophiles 5 per cent; basophiles 3 per cent.

Two days after (March 20, 1926) the findings were: Hemaglobin 90 per cent; red blood cells 4,440,000; white blood cells 8,000; polynuclear cells 55 per cent; small lymphocytes 23 per cent; large lymphocytes 15 per cent; transitional 2 per cent; cosinophiles 5 per cent.

March 20, 1926: The patient reported that he felt generally much better. There was a very questionable spontaneous nystagmus to the right side, with no vertigo. He was still under treatment with bismuth, and also under the care of Dr. Leefmans for the after-treatment of his alveolar processes following the extractions, until April 9, 1926, when he went home, to report again in a few weeks.

On April 8, 1926, the blood Wassermann test made by Dr. Wagenseller was found to be plus four as on former occasions.

April 9, 1926, the urinalysis was: Color, light yellow; reaction acid; sp. grav. 1025; albumen, faint trace; sugar, none; indican, marked; aceton, none; diacetic acid, none; epithelia, few; hyaline casts, considerable; granular, numerous; oxalates and urates present.

Under date of April 17, 1926, the patient sent a report of his condition, abstracts from which read as follows: "I am feeling very much better.

The vertigo has continually improved. I might say that taking it week by week there has been a decided improvement in the vertigo each week for the past three weeks. An examination of the urine made April 14th showed no albumen, no hyaline casts, a few

*** On this particular day our rule of "not extracting more than three teeth" at one sitting was broken, the writer having been present and cooperating. It was these particular teeth and sockets that the writer felt were most responsible for the patient's ailment and which required the most careful study, surgically and bacteriologically, and controlled further by three differential blood counts.

granular casts (3 or 4 in the whole field) and some cellular debris. An examination made today shows no change, with the exception that there are a few more granular casts."

Under date of May 6, 1926, another letter was received from the patient, abstracts from which read as follows: "I have followed the regulations carefully" (this referred particularly to the treatment of his syphilitic condition, which was now under the supervision of Dr. John B. Ludy of Philadelphia, who was substituting for Dr. Strohm, "am feeling much better and have gained three pounds since leaving Philadelphia, now weighing 184 pounds, which is 14 pounds heavier than I weighed all last year. Urinalysis made yesterday showed practically no casts, no albumen and no debris."

June 9, 1926: The patient reports in Philadelphia that he is weighing more than he ever did, 186 pounds. He feels no vertigo, except rarely upon turning in bed from left to right. He feels slightly fatigued if he works too hard. He believes his hearing is good. The mouth has all healed up. Urinalysis is negative to albumen, casts and other pathologic findings. The functional hearing tests at this time are:

Right Ear		Left Ear
	Weber	
Short 5″	Schwabach	Short 7″
+ 45″	Rinne	+ 47″
Normal	Air	Normal to questionably shortened
Normal	C^1	Normal
Normal	C^4	Normal

Spontaneous nystagmus: Mixed rotary horizontal nystagmus to the right when looking to the extreme right. Mixed rotary horizontal nystagmus to the left when looking to the extreme left (physiologic). No nystagmus when looking straight ahead.

Galvanic test:

Right Ear	Left Ear	
Kathode 6 Ma.	Kathode 9 Ma.	No reaction
Anode 7 Ma.	Anode 7 Ma.	(?)

Turning test, with head erect:

After 10 turns to the left there follows a horizontal nystagmus to the right lasting for 10 seconds.

After 10 turns to the right there follows a horizontal nystagmus to the left lasting for 6 seconds.

Turning test, with head inclined forward 90 degrees: After 10 turns to the left there follows a rotary nystagmus to the right lasting for 9 seconds.

After 10 turns to the right there follows a rotary nystagmus to the left lasting for 6 seconds.

Caloric test: After syringing the left ear with 2,000 c.c. of water at 60°F. over a period of five minutes, there follows no reaction in the form of nystagmus or otherwise with the head in an upright position or inclined in any direction.

Romberg is negative. The gait forward and backward, with eyes closed, is not as good as that of the average normal individual; in other words, it is more uncertain, and the tendency to stagger is greater in his case.

September 2, 1926: The patient reports that he feels better than he has for years. He hears well and has no vertigo. He weighs 187 pounds. and is thinking of taking exercise to reduce. The blood Wassermann is still plus four in spite of treatment.

Functional hearing tests:

	Weber (?)	
Normal	Schwabach	Normal
+40	Rinne	+40
Normal	Air	Normal
Normal	C^1	Normal
Normal	C^4	Normal

Spontaneous nystagmus: When looking to the extreme right there is nystagmus to the right. When looking to the extreme left there is nystagmus to the left, but to neither side more pronounced than the other; hence physiologic. There is no nystagmus when he looks straight ahead.

Galvanic test:

Right Ear	Left Ear
Kathode 6 Ma.	Kathode 7 Ma.
Anode 7 Ma.	Anode 6 Ma.

Turning test: After 10 turns to the left, with head erect, there follows a horizontal nystagmus to the right. lasting for 12 seconds. After 10 turns to the right, with head erect, there follows a horizontal nystagmus to the left, lasting for 11 seconds.

With the head inclined forward 90 degrees:

After 10 turns to the left there follows a rotary nystagmus to the right, lasting for 11 seconds. After 10 turns to the right there follows a rotary nystagmus to the left, lasting for 8 seconds.

Caloric test: After syringing the left ear with 2700 c.c. of water at 55 degrees, lasting for a period of 7 minutes, no nystagmus occurred in any position of the head, nor did the patient experience any vertigo.

SUMMARY

1. The diagnosis of neurolabyrinthitis is established on the strength of the history and findings, particularly the latter. The impairment of hearing was distinctly of the perceptive type: He claims to have heard his own voice as though it was far away, and when he spoke his voice was rather loud, just the contrary to that found in the conductive type of deafness. Furthermore, the Weber was referred to the better-hearing ear; the bone conduction was shortened; there was diminution of hearing for low, middle and high tones by air conduction.

The vestibular nerve was involved along with the cochlear, as evidenced by the history of vertigo, the diminution of after-turning nystagmus to both sides, more especially to the affected (left) side, the negative caloric reaction, and the typical galvanic findings of vestibular nerve involvement, to wit: Absence of reaction on the affected (left) side, with preservation of reaction on the other (right) side.

2. In this case there were two etiologic factors present, either of which is capable of producing neurolabyrinthitis. They were, syphilis and focal infection. In the case of syphilis, the tendency of the affection is to be bilateral; whereas, in focal infection the tendency is toward unilateral involvement. A knowledge of these facts led the writer to suspect the neuro-

labyrinthitis in this case to be of focal infection origin rather than syphilitic; however, it did not prompt him to ignore the syphilis or to relax its treatment.

The characteristic blood findings clinched the diagnosis of focal infection. It has been my experience, in cases of focal infection, to find the total white blood cell count ranging from 10,500 to 16,000 with a small lymphocyte count somewhere between 30 and 38 per cent. Even more conclusive were the blood findings on three consecutive days (March 18, 19 and 20); the first count was made just before extraction of the last four infected teeth; the second count was made the day after, and the third count the second day after the extractions. There was nothing else done at this same time to influence the blood findings, nor did the character of the Wassermann change in any way.

The improvement in the blood findings marked a definite change for the better: (a) general sense of well being, (b) increase in body weight, cessation of vertigo, and (d) rapid improvement in hearing.

Concerning the left vestibular nerve which was completely out of function at the height of his trouble, as indicated by its negative conductivity (reactibility) to galvanism, it improved sufficiently, after a few months, to be again responsive, but not so the vestibular labyrinth, which failed to react to cold water (caloric test).

The lack of improvement in his Wassermann, though unfortunate in one way, served a scientific purpose, and allowed us an opportunity to study the comparative effects of syphilis and focal infection under the most favorable circumstances. Had the syphilis played the least etiologic role in the neurolabyrinthitis, such marked improvement in every respect could hardly have been expected without a concomitant improvement in the Wassermann.

There can be no doubt as to the eventual success in the treatment of the patient's syphilis, since he is in the hands of two syphilologists, who have collaborated in the treatment of this phase of the case.

The patient still has tonsils which appear more infected than the average case calling for removal. They are to be removed at an early date by a capable nose and throat specialist of his own city, for fear that sooner or later they may serve as a focus for a recurrence of his neurolabyrinthitis.

BLOOD TRANSFUSIONS, INDICATIONS AND METHODS*

ALFRED A. STRAUSS, M. D., F. A. C. S.

*(From the Surgical Services of the Michael Reese and Chicago Lying-in Hospitals, Chicago.)**

CHICAGO, ILL.

In the earlier years of surgical history blood transfusion was considered a heroic measure, employed only for two indications: profound anemia and severe hemorrhage. Even at present after so much has been written on it, one can go to many large institutions and much to one's surprise, see it used very rarely and then only for the two above indications.

But the transfusion of blood has a much wider field of application. It is just as important to the pediatrician and the medical man as it is to the surgeon.

Before detailing its manifold uses, let us consider its effects. In general, they are: rise in blood pressure, an increase of 1,000,000-2,000,000 red blood cells; increased leukocytes, hemoglobin and coagulability of the blood. But that is not all; the patient also gets the serum, loaded with immune bodies and nutritive substances. It is a definite heart muscle stimulant, as many of our internists will collaborate. In our opinion, not even digitalis can take the place of 200-300 cc. of blood in its tonifying effect upon the heart muscle. Our clinical experience does not support the theoretical objection that hypertension and a failing heart contra-indicate blood transfusion. We have not seen any acute dilatation of the heart even in cases of pneumonia.

Most surgeons use blood transfusion only as a last resort, when the patient is moribund. Such a test is patently unfair to this valuable remedy. In over sixteen years we have used it extensively in our pre and post-operative care, in connection with saline and glucose solutions. We always perform blood transfusion when there is the slightest indication for it and use it as a prophylactic against surgical risks. We have undertaken with success surgical procedures that would have appalled many a surgeon, surgical risks that were well nigh hopeless. We do not attribute this success to better operative technic or skill, but to good pre-operative and post-operative care, the procedure par excellence of which is a blood transfusion. Surgical judgment, yes; good surgical technic, by all means; but do not hesitate to use this procedure that has converted many a questionable risk into absolutely safe ones.

Cases with secondary anemias following chronic ulcers of the stomach, duodenum, chronic ulcerative colitis, carcinoma of the

* Read at Annual Meeting, September 1926

stomach, of the duodenum, colon and rectum are usually poor surgical risks. They are submitted to the following pre-operative regime. Daily for three to four days, sometimes as long as six to eight days, they are given 500 cc. of 5 per cent glucose and 3000 cc. of saline. Then a blood transfusion is given to cap this preoperative preparation before the final plunge of operation. The contrast between a patient that has been prepared thus and one that has not is too striking to be ignored. The patient with this preparation returns to bed following the operation with a full pulse, usually less than 100, blood pressure ranging from 110 to 130, flushed face, red lips, warm extremities and free perspiration and without secondary shock; the one without such preparation returns cold and clammy, pale, with a rapid pulse, and gives the surgeon 24 to 72 anxious hours. The surgeon will then resort to these procedures which he should have carried out before the operation. The moral is obvious: it is much easier to use these prophylactic measures to prevent shock than to use them after shock has supervened.

A great deal of objection has been raised against too many transfusions at short intervals, but oftentimes in large patients the transfusion of the usual 600 cc. is not sufficient to make up the blood loss. In many cases of duodenal ulcer with profuse hemorrhage, we have given as many as two transfusions before and a third after the operation. In on instance, a man of gigantic proportions was admitted with profound duodenal bleeding. He was given two successive transfusions of 800 cc. and 600 cc. respectively by two different donors before the operation, a transfusion of 600 cc. after the operation and a fourth of 600 cc. twelve hours later. The result was excellent and no untoward effects were observed.

In bleeding duodenal ulcers our experience has been as follows: In young individuals who have bled a great deal, with a rapid pulse and marked anemia, a transfusion not only stops the bleeding but also brings them out of their critical condition. We have repeatedly observed after a transfusion, that the hemoglobin and red cells are markedly increased and the pulse after a few hours drops from 140 or over to 100 and remains there—evidences that the hemorrhage has stopped due presumably to the increased coagulability of the blood. Older individuals, however, owing to arteriosclerotic vessels, have a tendency to repeated hemorrhages after 24 to 48 hours after a transfusion. Undue delay in these cases sometimes lead to a fatal termination. We therefore believe it best to transfuse them just before the operation, operate on them by ligation of the bleeding vessel or excision of the ulcer, and tren transfuse following the operation if necessary; instead of transfusing and waiting as in younger patients.

In the preparation of jaundiced patients, blood transfusion not only increases their resistance, but also decreases the coagulation time from say 8 to 10 minutes to 2½ or 3 minutes. In cases where there is cholemic delirium, the transfused blood seems to have a detoxicating effect, as soon after the transfusion, the patients become rational. In gynecological and obstetrical hemorrhage, this is a weapon that has not been used to any large extent but when used will surely reduce the mortality rate. One readily runs one's mind over such conditions as ectopic pregnancy, postpartum hemorrhage, and hemorrhage from placenta previa, etc.

The effect of blood transfusion in child surgery is even more brilliant than in adult surgery. The child seems to respond more readily and the effects seem to be more lasting. This is exemplified in long standing cases of bleeding Meckel's diverticulosis, in long standing cases of pyloric stenosis, and in operative shock as in prolonged operations on the gastro-intestinal tract.

In hemorrhages from the new-born, especially into the gastro-intestina ltract, a pallid, apathetic, stuporous baby can be converted within a few minutes as if by magic into a pinkish, healthy looking baby by the mere introduction of 50-75 cc. of blood into the longitudinal sinus. One transfusion usually stops the hemorrhage and in only a few cases is a second tranfusion necessary. At the Chicago Lying-in Hospital, we have had a practically 100 per cent success with these cases. The coagulation time is definitely shortened and bleeding stops.

In the nutritional changes associated with diarrhea in infants, in decomposition or atrophy, I know of no greater remedial aid.

In severe pneumonias of childhood it is also being used with considerable success.

In the adult it is of special value in the various anemias in which splenectomy is indicated. In pernicious anemia it is of temporary benefit. Repeated small transfusions have saved many lives in the slow, mild chronic suppurative processes with secondary anemia. In cancer cases we have seen very good effects, and the theory of the carcinolytic power of the blood of young donors bears further investigation.

In pneumonias, it seems to have a detoxicating effect. In patients with temperature over 107, and delirious, the giving of 300 cc. of blood clears the sensorium to lapse again in 24 hours. A repetition of the transfusion induces a similar reaction.

In other acute infections our experience has

not been very favorable and I have discontinued this procedure believing it distinctly deleterious.

We maintain a donor list of over three dozen donors, all grouped and all required to have a Wassermann done every six weeks. These donors are mainly university students and young healthy adults. We prefer to use a donor from the same group as the recipient, but in emergency cases we have used universal donors. We require a direct compatibility test of the serum of the recipient against the cells of the donor before every transfusion. Even in cases where two donors are compatible with the recipient before the transfusion and one donor is used for one transfusion, another compatibility *must* be done with the other donor before the second transfusion is given. This is because even though they may be compatible with the recipient, they may not be compatible with each other. The same donor should not be used twice on the patient because of the formation of isoagglutinins.

In a series of over one-thousand transfusions extending over a period of fifteen years, we had 2 per cent of reactions and these were mild. We believe that reactions in the citrate method are not due so much to the citrate as to the exposure of the blood to air and the cooling of the transfused blood. In our experience no reactions are encountered where the compatibility test is properly done and where the blood is drawn and given quickly without allowing cooling to take place. Dr. Percy of the Augustana Hospital in Chicago has had the same experience. In cooling there must be a disturbance in the colloidal chemistry of the blood.

Of the methods devised for blood transfusion, some are of only historical interest. The methods may be grouped (1) the transfusion of modified blood; (2) the transfusion of whole blood.

Of the first group of methods only the citrate method is worth mentioning. There are different modifications of this method, among them the Lewisohn method, the apparatus of Robertson, Jeonbrean and others. The objections to this method are (1) the blood is allowed to cool; (2) a large amount of foreign substance is introduced into the circulation of the recipient.

The methods for the transfusion of whole blood are grouped under (A) Direct, (B) Indirect.

The direct method is mentioned only to be discarded. It is also called vein to vein or artery to vein method and involves blood vessel anastomosis. It is not only objectionable from the point of view of technic, but also for sanitary reasons, for the donor and recipient are brought together.

Of the indirect methods may be mentioned (1) the Lindeman method; (2) paraffin tube method of Percy and others; (3) apparatus with two, three or four way stop-cocks as the Unger, DeLee and others.

Generally, these methods have one or more of the following objections: (1) necessity of cutting into the veins; (2) too small cannulas or too complicated channels, thus facilitating clotting; (3) long exposure of transfused blood to air and to cooling; (4) instability of the cannulas inserted into donor and recipient.

In our opinion the method that approaches nearest the ideal is one that fulfils the following requirements:

1. Simplicity in the construction of the apparatus; such a machine is easy to take care of and keep in working order. It should not have any complicated channels as these promote clotting. The channels must be of such a size that no coagulation can occur.
2. Simplicity in operation which reduces the number of assistants, the number of steps and the amount of mechanical aid.
3. Rapidity of operation.
4. It must be portable, so that it can be carried to the patient's bedside in the hospital or at home.
5. Minimum amount of trauma to the veins, so that they can be used repeatedly; closed methods are, therefore, desired.
6. The cannulas once introduced into the veins must stay securely in place during the operation.
7. The patient and donor must be at a safe distance from each other. This is to prevent contagion.
8. As a corollary to No. 4; the minimum amount of changes allowed in the colloidal chemistry of the blood and the least cooling possible, thus reducing reactions.

It was with a view of meeting with these requirements that we devised a method published in the Journal of Surgery, Gynecology and Obstetrics, November, 1925. I am quoting it in part with some modifications.

TECHNIC

The apparatus for the direct syringe-cannula needle method consists of three 100 cubic centimeter Luer syringes, which usually hold about 150 cubic centimeters of blood, a short piece of rubber tubing, and two cannula needles, one for the donor and one for the recipient. The cannula needle contains an obturator which with the cannula needle is beveled at the end like a spinal needle, and is sharp enough to pierce the skin and the vein with ease. It must be specially emphasized here

that the needle must be razor-sharp as any dull needle tears the wall of the vein. Midway down the cannula needle is a shoulder with a perforation of a size to admit a cambric needle.

The technic of inserting the cannula is as follows: The cephalic or the median basilic vein is used. A small rubber constrictor is set on the recipient's arm and tied tight enough to dam back the venous blood. The recipient contracts the muscles of the forearm to distend the vein. A small cambric needle is inserted transversely to the long axis of the vein, so as to transfix the skin and the anterior wall of the vein. This holds the vein solidly against the skin, and the sharp cannula needle is inserted just below the cambric needle through the skin into the vein. The cannula is set pointing proximally in the arm of the recipient, the obturator is withdrawn and a jet of blood should spurt out of the cannula. The obturator is then put back, and the cannula transfixed by a second cambric needle which passes through the skin on one side, the perforation in the shoulder of the cannula and out through the skin on the opposite side. The constrictor is then released. In recipients in whom the pressure is low, no spurt of blood may be seen. In this case the constrictor is then released and some saline solution is injected into the cannula to see if it is in the vein or not. The same technic of introducing and fixing the needle is used on the donor, except that a blood pressure machine raised to 60-90 mm. of mercury takes the place of the constrictor and that the needle is placed pointing distally. The blood pressure machine is kept at 60-80 mm. of mercury throughout the operation. A Luer syringe is washed in saline solution and rinsed in 2 per cent citrate solution, but no citrate is left in the syringe save what may adhere to the walls of the syringe. The obturator is then removed from the cannula in the donor's arm, and the curved adaptor with its small piece of rubber tubing and glass syringe is attached to the cannula. When the donor contracts his forearm muscles by opening and closing the hand, the blood is easily drawn into the syringe. In fact, without any traction whatsoever, the pressure of the blood will force the plunger upwards as the blood runs into the syringe. After 100 cubic centimeters or more is drawn up into the syringe, it is detached and transferred to the recipient while the assistant draws a second syringeful from the donor. After the syringe has been used, it is again washed in saline solution by the nurse and rinsed in citrate solution. In this way, three 100 cubic centimeters Luer syringes are kept going in rotation, and from 600 to 800 cubic centimeters of blood can easily be transfused in ten minutes. There is, however, no necessity for haste, as the blood does not coagulate within the syringe for at least four or five minutes.

In cases with possibility of infecting the donor, we place the donor in a separate room, one man inserts the needle into the recipient and another man into the donor. The syringes used are discarded and fresh syringes are employed for every syringeful of blood.

Occasionally in patients who are pulseless or whose veins are poor, it may be impossible to enter the vein by this method. A very small incision can then be made through the skin transversely to the long axis of the vein, exposing the vein and a cambric needle inserted through the upper wall of the vein. The cannula needle is inserted into the vein, being transfixed to the skin by a second cambric needle as in the foregoing method. If this method proves unsuccessful in the recipient on account of smallness of the vein, as in a young child, a short longitudinal incision is made through the skin, the vein is lifted and a small oblique incision made, through which an ordinary cannula needle is inserted and transfixed with catgut.

In an infant with an open anterior fontanel, a needle with a small metal knob, so placed that the needle will just reach the superior longitudinal sinus but not go through it, is used. The landmark for inserting the needle is the posterior portion of the anterior fontanel where the two parietal bones meet. The needle is plunged in right up to the metal guard, and if the needle is in the sinus a free flow of blood results. If a free flow of blood does not result, the needle should be placed to one side or other of the original puncture. One must never inject the blood unless there is a free flow of blood from this needle puncture. I have used this simple method of transfusion in infants for many years in a large series of cases without any ill results.

In new-borns, where there is a great deal of over-riding of the parietal bones, the longitudinal sinus may be difficult to find. In these cases we have used the extenral jugular vein, through a transverse nick in the skin down to the vein.

CONCLUSION

Blood transfusion is an indispensable procedure and as a prophylactic measure against questionable risks is of inestimable value in reducing the mortality and should be used more in general surgery as well as in obstetrics, pediatrics and medicine.

A method is hereby presented that has all the requisites outlined above as approaching nearest ideal, namely:

(1) Simplicity in construction and in operation.

(2) Rapidity of operation.
(3) Portable.
(4) Trauma to veins reduced to a minimum so that the vein may be available for subsequent use.
(5) Cannulas are of such a caliber as not to promote clotting and they stay securely in place when once introduced.
(6) Donor and recipient need not be in proximity.
(7) Practically no reactions occur.

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DIPHTHERIA*

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The higher incidence of diphtheria this past spring and summer, has brought back memories of the sad days several years ago when we were obliged to care for many neglected cases of this disease. It has also stimulated the thought that if the lethargy and indifference continues toward this affliction, we will again be facing the unhappy situation which we formerly experienced. To illustrate my point, the census on the diphtheria wards at the Herman Kiefer Hospital in Detroit, four, five and six years ago averaged about 120 patients, the past three years with the exception of the period I have mentioned, averaged about 35 patients. Therefore there has been a definite decrease in the number of diphtheria patients admitted. In addition to this there were but few severe cases noted. We were beginning to hope that at last this dreaded disease was soon to be conquered. We attributed this success to the advent of generalized use of toxin-antitoxin, and the careful management of diphtheria cases, and their contacts.

The profession was seeing less and less diphtheria, and less and less of severe cases, and so obviously diphtheria began to take a secondary role among acute diseases. The laity soon sensed this condition and the consequence was that an air of indifference arose. Suddenly, an increasing number of diphtheria cases occurred, which soon filled the hospital wards. There arose a cry that the cases were treated early but did not seem to respond to the usual treatment. Two things were blamed for this: one the antitoxin used, it being stated that it was not potent enough and the other: that there was an accompanying or an associate infection present. The first accusation was difficult to prove. We tried several brands of antitoxin with practically similar results. Careful questioning of patients or their relatives in most cases, disclosed that the antitoxin was not administered early enough. The second accusation had a little merit to it, and it resulted in the following investigation:

Thirty-one cases of moderately severe diphtheria gave blood for blood cultures. A bacterium of some sort was isolated six times (during life). Three of these cases were of the hemorrhagic variety, and in all three the K. L. bacillus was found, the other three showed a streptococcus.

The literature shows that about nine investigators have isolated the diphtheria organism from the blood stream during life, and that about 18 others have isolated the K.L. organism post mortem from the heart, blood vessels and various organs of the body. This work shows that there may be a septicemia associated with some of the septic cases of diphtheria.

A detailed report of the above blood investigation is soon to be reported by Dr. E. Martmer of the Herman Kiefer Hospital, Detroit.

This outbreak of severe diphtheria with a high death rate justifies a renewed attack upon this infection.

I am not going to occupy your time with the history of the Klebs-Loeffler infection. The mode of transmission of the infection is of interest. On lead pencils, toys, tumblers, paper money and the like, the organisms can live for several weeks. When the organism is dry and exposed to light it will die in a few hours. When in the dark or more so when protected by a thin film of mucus or albumin, the organism may live for months. This is of significance when we consider the carrier problem. The most common mode of transmission is by direct contact with a case of diphtheria, or a diphtheria carrier.

We are aware of the fact that the K. L. organism manufactures a toxin. This toxin when injected into an animal stimulates the production of antitoxin. The point I want to make is that the antitoxin manufactured by the body is retained much longer than antitoxin introduced into the body.

The incubation period is from one to five days. The onset may be insidious or rapid, usually insidious in the mild cases, and rapid in severe cases. The average case at onset manifests headaches, drowsiness, malaise, temperature 99 to 100, a pulse, usually more rapid than the temperature would indicate, and occasional

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vomiting. The sore throat is not manifest until 12 to 24 hours and even then, there is more of a sense of fulness in the throat rather than actual soreness. The throat is much more sore when the membrane has disappeared. The symptoms indicate that the disease is a toxemia at its inception.

In the severe cases, there is more severe headache, more marked prostration, bachache occasionally, temperature usually higher up to 101 and more rapid growth of membrane. There may be anxiety and delirium.

The average diphtheria patient is dull and apathetic. He desires to be left alone in contradistinction to the streptococcic sore throat where the patient is quite alert, anxious and flushed. The fact that the throat is not actually sore, but dry, full and uncomfortable, diverts attention and allows for considerable progression of membrane growth before treatment is instituted.

The septic cases present a picture of extreme prostration, pallor, and waxy appearance, difficulty in breathing and swallowing, uniform swelling of neck, (bull neck) higher temperature and may show local or generalized hemorrhages with considerable distribution of membrane on the tonsils, pharynx and soft palate.

The laryngeal form is usually secondary to the tonsillar form. The diagnosis is easy when a case with a brassy cough, husky voice presents itself and there is exudate on the tonsils. However, in primary laryngeal diphtheria cases the diagnosis is sometimes difficult. The onset is insidious, the voice husky, there is brassy cough, some temperature, restlessness, irritability and possible infra-sternal retraction.

Most cases of nasal diphtheria show very little constitutional symptoms, and practically no constitutional disturbances or complications. Attention is directed toward these cases by continued nasal discharge or nasal hemorrhages. These cases are sometimes detected by excoriations about the nostrils and face. Here is a type I want to describe. A primary nasopharyngeal diphtheria in which there is considerable growth of membrane in the nasopharynx before it is evidenced in the throat. The first evidence is usually about the uvula growing from behind forward. These cases are often beyond help when seen.

There are types of local diphtheria which may be mentioned: umbilical diphtheria, eye diphtheria, skin diphtheria, wound diphtheria, vaginal diphtheria, etc.

DIAGNOSIS

The diagnosis of diphtheria should not be difficult. A history of exposure is important. A history of Schick test and a history of receiving "T. & A." are important. Given a throat with symptoms as described where there is a uniform membrane present, on one or both tonsils or on the uvula or pharynx, consider the case one of diphtheria. If there is exudate present on tonsils and also on other parts of throat, the case is almost unquestionably one of diphtheria. A membrane in the nose almost always denotes diphtheria. True, a throat may have a uniform membrane and be a phlegmanous sore throat and not diphtheria, or it may be a mixed infection. Here of course, the other symptoms must be taken into consideration, but when in doubt *give antitoxin.*

The differential diagnosis lies between:

1. Follicular tonsillitis, the differentiation here is obvious.
2. Vincent's angina is usually unilateral and is ulcerative, (smear shows typical spirillum and bacillus.) The exudate eats the tonsil, and leaves ulceration upon healing.
3. Peritonsillar abscesses are treated as diphtheria, and visa-versa. The two are differentiated by the amount of swelling constitutional symptoms, history and pointing.
4. Septic sore throat is differentiated by history, constitutional symptoms, temperature and etc.
5. Syphilis: History, constitutional symptoms, ulceration of throat, glandular enlargement, and Wassermann reaction.
6. Post tonsillectomy cases are differentiated by history and appearance.

The laryngeal diphtheria types must be differentiated from:

1. Spasmodic croup which is manifested by no temperature, sudden onset, previous history of such attacks. Laryngoscopic examination if possible. There is usually no hoarseness and the attacks most always occur at night.
2. Foreign bodies are differentiated by history, type of breathing, careful examination of the chest, X-ray and laryngoscopic examination.
3. Papillomata of larynx, are differentiated by history, chronicity and laryngoscopy.
4. Broncho pneumonia. Obvious.
5. Retro-pharyngeal abscesses are differentiated by crow, neck retraction, mass in pharynx, temperature, etc.
6. Poliomyelitis: During epidemics of poliomyelitis certain bulbar cases are mistaken for laryngeal diphtheria. This is due to the fact that these cases are often accompanied by considerable respiratory distress. One must bear in mind the fact that there is an epidemic prevailing, that there is usually post-pharyngeal paralysis, or inter-costal, and diaphragmatic paralysis, instead of infra-sternal retraction as seen in laryngeal diphtheria.

You notice that I have not as yet said any-

thing about cultures. My disappointments with cultures have been very numerous. Do not believe cultures, if membrane is spreading, give antitoxin. Also do not forget that some people are carriers. The rule that I follow is this: Given a suspicious throat, I may take a culture, in most cases, I do not, but I examine the throat again in 12 hours. If the membrane has spread I give antitoxin and so I have beaten the culture by about 12 hours, because it requires about 24 hours to obtain a culture report. I could give numerous examples of very serious errors because of too much faith in the culture report.

The diagnosis of carriers, of course, is almost entirely dependent on cultures. Persistent carriers should have the benefit of the virulence test. The virulence test has no place in acute diphtheria because of the length of time necessary for its completion.

The question of identification of non-virulent strains of organisms, of identification of diphtheroids, of pseudo-diphtherias, B. Hoffman and B. Xerosis must be left entirely to the trained laboratory workers.

PATHOLOGY

The lesions of diphtheria are produced by soluble toxins the products of the activity of bacillary growth. The endotoxin of the substance of the bacilli is also poisonous, but not to the same degree. This substance does not produce paralysis.

Locally, the disease manifests itself, by membrane formation. Ordinarily there is no odor, but when hemorrhage occurs intot the membrane or when there is an associated infection considerable odor may be present. Lymph gland swelling occurs. The toxin produces degeneration and necrosis of epithelium of the lining of blood vessels.

Generally the effect produced is that of systematic degenerative changes. When there is present in the blood stream some antitoxin, the effects are not as far reaching. Upon the heart fatty degeneration of the myocardium occurs which may be slight, localized, or generalized. The destruction may be severe enough to degenerate fibres and even the vagus nerve. Upon the kidneys slight or severe glomerular and intestitial changes may be found as the result of this infection. Upon the nerves the effect may be quite extensive. The toxin probably travels up by way of the perineural lymph stream to the brain producing widespread lesions.

COMPLICATIONS

The most frequent and one seen most commonly is the palatal paralysis. It is seen very early in the second week. (the first paralysis to be noted)and may be caused either by local changes or by the effect of toxin upon the nerve branches supplying the palate. Ciliary paralysis is seen in the third week. It is fairly frequent. Strabismus may be seen but is not frequent. Facial paralysis is very uncommon. Pharyngeal and oesophageal paralyses are fairly rare. They have a gradual onset about the fourth week. Paralysis of the bladder and rectum is rare. Peripheral neuritis is seen between the fourth and sixth week as is intercostal paralysis. Some sensory paralysis is seen occasionally, but is usually a late complication. Cardiac paralysis is almost always seen in the second week. Heart failure may be late, but is usually seen in the second week. The symptoms of heart failure are nausea, vomiting, precordial and epigastic pain, the mentality is clear, sometimes the patient is restless, the extremities are cold and cyanotic, pulse is weak and irregular, and often times not palpable, pulse drop to 20 or 30 is sometimes seen. Death usually occurs in about 24 hours following the onset of these symptoms. The presence of albumin in the urine early in the disease means very little. Later, however, severe nephritis may be encountered. Hemorrhages both local and systemic are seen fairly frequently. Hemiplegia is rare. The glands are involved in most of the moderate and severe cases, but gland suppuration is infrequent. Otitis media is rare and if present is due to secondary infection.

THE PROGNOSIS

The prognosis is dependent upon age, type of disease, duration of illness and complications. Cases with extensive hemorrhage, with marked membrane formation, intubation cases under three years of age, persistent rapid pulse rates and vomiting cases having "pulse drops" bear an unfavorable prognosis.

TREATMENT

The treatment of diphtheria is *"antitoxin"* Given a case of diphtheria, give an adequate dose of antitoxin at once. Further administration of repeated doses of antitoxin seems futile. Park has proved experimentally by repeated examination of the blood after even small doses of antitoxin, that there is an excess of antitoxin present in the blood stream. If one considers antitoxin as a preventitive, rather than a cure for diphtheria the situation clarifies itself. Antitoxin unites only with the free toxin in the blood stream. It cannot separate the toxin which has already combined itself with nerve muscle and parenchymatous organs. Therefore the injury done up to the time that the antitoxin has neutralized the toxin is done and cannot be undone. This point ought to clarify our views on treatment of diphtheria, if for no

other reason, this one is sufficient to give an adequate dose of antitoxin early and stop.

There are three methods of administration of antitoxin: the intravenous, intramuscular, and subcutaneous. It is true that the sooner antitoxin saturates the tissues, the sooner the toxin becomes inert, still the few hours saved by the intravenous route administration is not necessarily life saving, because if the case has reached that point, where but a few hours would determine the issue, it is doubtful if those few hours would really be life saving. The subcutaneous route should be disregarded. Very little difference really exists between the other two. I have had the opportunity of working in two institutions, in one the intramuscular route of antitoxin administration was used almost exclusively; in the other the intravenous route was used almost exclusively. By comparing the morbidity and mortality records of the two institutions, I noted very little difference. The institution where the intravenous method was employed had the benefit of a specially selected, well tested antitoxin for intravenous use. The other institution was dependent upon the average commercial product. The danger of reaction from the controlled antitoxin was much smaller than the danger from the uncontrolled (or commercial product) which accounts for the divergent opinions held by these groups. I have seen but few bad immediate reactions from the administration of antitoxin in either group.

For a time we practised the administration of a few drops of adrenalin at the time of the giving of the antitoxin intravenously. In these cases we saw no bad effects. It would seem that the administration of adrenalin would be efficacious. The giving of antitoxin intravenously does not seem, in my opinion to dissolve the membrane any sooner.

In general I would suggest that the intramuscular administration will answer all requirements to those who do not have the facilities to employ the intravenous technic.

There exists among the laity, and I am sorry to say some practitioners, the idea that antitoxin injures the heart. Nothing is further from the truth, particularly so if one recalls the statement which I first made: that antitoxin is a preventative and not a cure for diphtheria, the damage done by the toxin of the disease, is done, and if the patient is unfortunate enough to have had the toxin unite with his cardiac mechanism, no amount of antitoxin large or small can do harm or good.

THE DOSE OF ANTITOXIN

Generally speaking 40,000 units intramuscularly or 10,000 units intravenously seems to be fully adequate even in the worst cases. Park has proved by experimental work that the cases who receive the doses stated above, carry an excess of free antitoxin in the blood stream for a number of days. One must grade his dose from this high standard downward according to the severity of the case, always remembering, however, that it is safer to lean toward the larger dose than toward the smaller. In Boston the profession still uses very large doses of antitoxin, up to 100,000 or more units with no seeming injury to the patient. Their statistics are no more favorable than New York's where smaller doses are employed.

Rest is the other important therapeutic agent in diphtheria. Absolute quiet and freedom from exertion is sometimes even life saving. Do not allow exertion in any diphtheria case, no matter how mild before eight or ten days. If there is evidence of paralysis keep patient in bed at least three weeks, and even then watch carefully for evidence of further paralysis or myocardial involvement.

The treatment of complications is rest, and general hygienic measures. We have no specific medication to combat neural or cardiac involvements. Strychnia is resorted to occasionally in cardiac cases, its effect is doubtful. Digitalis is contra-indicated in early myocardial involvement because there is already danger of heart block. Caffeine and camphor are used as stimulants. Adrenalin and atropine are serviceable in laryngeal cases. Attention should always be given to free elimination. One should not lose sight of the fact that a plentiful supply of fluid is very necessary.

The treatment of carriers with various local applications seems very unsatisfactory. If the case is persistently positive one should resort to the virulence test. If the organisms are nonvirulent dismiss the patient. If virulent proceed to clear up the throat and nasopharynx, by such surgical means as are deemed necessary. Here is a fact to be noted that an individual with a clean throat and nasopharynx very seldom contracts diphtheria.

Laryngeal diphtheria is treated by an adequate dose of antitoxin, rest, stimulation if necessary, and intubation if the obstruction is acute enough to warrant same, or if there is obstruction and impending cardiac collapse, and the patient's energy must be conserved. I will not go into detail about the technic of this procedure, suffice it to say that it should be left in the hands of an expert. I will say, that direct intubation is practiced sometime when indirect is difficult. In this operation a by-valve laryngoscope is used and the tube is introduced directly. The advisability of tracheotomy should be left to the operator.

In the past three or four years, suction has been employed to relieve laryngeal obstruc-

tion. This measure consists of viewing the larynx, by means of a laryngoscope and sucking out the loose membrane by means of a hard rubber catheter attached to a suction apparatus. This operation is successful in cases where there is loose membrane and comparative slight edema present. There are other means of mechanical relief resorted to by those trained in this work.

Chronic tube cases are treated by dilatation of the stenosed larynx.

PROPHYLAXIS

We will now pass on to the most important consideration in diphtheria, and that is prophylaxis. Prophylaxis in diphtheria is most important because in it we possess very effectual means of eradicating diphtheria.

With the introduction of antitoxin the death rate in diphtheria has been reduced from 150 to 20 per 100,000. With the introduction of the Schick test and toxin-antitoxin and the renewed interest, it stimulated in this disease, the death rate has been cut to one-half or about 10 per 100,000 population. With such potent means of detecting susceptible persons, of preventing and treating this disease, there is no reason why the death rate should not be reduced to a very low minimum.

It seems very difficult for public health departments to compel people to use antitoxin more quickly and more generally than they do now. The general practitioner may aid this situation a great deal by insisting and constantly advising his families that all sore throats must be sent to him for examination. I tell my patients constantly that I want to see all cases of sore throats in the family, and I explain to them how important it is that I see them. One of the advantages of seeing a sore throat early is that the contacts are still in the stage where they can be immunized passively with a small dose of antitoxin. About 1,000 units is sufficient for this purpose. This procedure prevents others in the family from contracting diphtheria, and so diminishes the total number of diphtheria cases. Even if it were possible to educate the laity to recognition of the danger of sore throat and even though each case was treated early, and suitable prophylaxis given, we would still be handicapped by the danger that the carrier could produce. The safest way to deal with the problem would be to prevent people from contracting diphtheria. We have such an agent in toxin-antitoxin.

Before administering toxin-antitoxin, one may resort to the Schick test to determine susceptability to diphtheria. The Schick test if properly done with fresh toxin is a very reliable test. It is within the realm of possibility that a person who is Schick negative with the above conditions fulfilled, still be susceptable to a massive infection of diphtheria, but to all intents and purposes a Schick negative patient is immune to diphtheria. The Schick test briefly consists of injecting intrademally 1/50th M. L. D. of toxin in 1/10th C.C. normal saline. A positive Schick test is noted by a circumscribed area of redness and slight skin infiltration. One to two cm. in diameter which may show up from 12 to 48 hours after injection and which persist from one to three weeks, and which on fading shows scaling and brownish pigmentation. A pseudo-reaction usually shows up earlier, and disappears in about 24 to 48 hours at the most four days. It has more of an urticardial appearance, and covers a larger surface and is redder at the center than at the periphery. To make certain one may use control consisting of heated toxin. An example of the reliability of the Schick test has been demonstrated at all communicable disease hospitals. At the Herman Kiefer Hospital where in former years as many as 10 per cent of scarlet fever patients contracted diphtheria, in recent years all patients were Schick tested, all the Schick positive patients received an immunizing dose of diphtheria antitoxin and the result was that it was indeed rare to find a case of diphtheria developing in a scarlet fever patient during his internment at the hospital.

The Schick test has showed that 15 per cent and less of infants from birth to six months are susceptible. From six to nine months 70 per cent are susceptible. From one year to two years, 80 per cent. Two to five years 65 to 80 per cent. Over 20 years 30 per cent are susceptible. At the present time Schick test material when once mixed for use deteriorates after 24 hours. It is supplied by commercial houses in lots sufficient to test 50 persons, no smaller lots are furnished. For the general practitioner it therefore becomes a very cumbersome and expensive procedure to Schick test all cases. Since almost 80 per cent of children in the pre-school age are susceptible the advisable procedure for the average practitioner would be to resort to the toxin-antitoxin administration without referring to the Schick test.

Soon after the discovery of the fact that the Klebs-Loeffler organism produced toxin and almost immediately after the discovery of antitoxin (1895-1896) investigators observed that animals injected with toxin partially neutralized by antitoxin, became in a measure immune. No human experimentation was attempted at that time. Later on Park was able measure susceptability to diphtheria by testing the antitoxic content of blood, that is testing blood specimens to determine how much, if any, antitoxin was present in the blood stream.

This was of course a tedious and crude test for general use. Park's results showed that two-thirds of the children he tested had no antitoxin in their blood stream. After the discovery of the Schick test, the road was open for toxin-antitoxin experimentation. Behring produced the first "T. & A." mixture. Park and Zingher soon followed in corroborating Behring's report. The standard which Park first used consisted of three L. plus doses slightly under neutralized with antitoxin. It was found that 1/30th of this dose or 1/10th L. plus doses neutralized was just as efficient and far less toxic. Park and Zingher have carried out the most intensive program of immunization in New York City. Their results have been very gratifying indeed. Roughly speaking they have been able to immunize over one-half million children with no serious effects noted.

The injection of toxin-antitoxin is very simple. The State Board of Health in Michigan and other states distributes T. & A. mixture to physicians without cost. The product can also be purchased from any good Biological firm at a very small price. One c. c. of the solution is injected subcutaneously each week for three weeks. Immunity usually appears in from one to six months. About 90 per cent can be made immune with the one series of injections. More than half of the remaining 10 per cent can be immunized with a second series of injections. A few will not respond to the second series and require a third. As the result of the use of toxin-antitoxin in the past four years, the mortality in diphtheria has been reduced from one-half to one-third of its former incidence. Retests in many instances 10 years after injection, still show the persons immune.

There has been a little objection raised to the use of toxin-antitoxin because it contains horse serum, which tends to sensitize persons. Although a slight amount of sensitization is possible, there have been but very few instances of such sensitization seen. *The Journal of the American Medical Association,* March 27, 1926, contains the results of a five-year investigation with T. & A. prepared according to the Park technic in which no appreciable clinical or laboratory sensitization to horse serum was noted.

To summarize toxin-antitoxin: we may state that it is easily procured, entails no expense, keeps well, is safe to administer, does not sensitize and is from 90 to 98 per cent efficient. In the face of these facts there should be little objection to its general use. Zealous workers have even made attempts to obviate the little objection raised to the fact that antitoxin is present in T. & A. mixture.

The result of their work has been the production of toxoid, which is toxin detoxified with formaldehyde. In addition to the fact that it obviates sensitization it seems to produce immunity more rapidly, that is in about four weeks to three months.

Larsen of Minnesota has a product which is similar to his scarlet fever toxin. It contains toxin in a 2 per cent castor oil soap solution. This solution when injected intramuscularly is absorbed very slowly (about 72 hours) thus enabling the giving of a larger dose of toxin in one dose. This obviates the giving of three injections, when one seems to be sufficient.

In my conclusion I want to include the plea and resolution of Recent American Health congress:

"Ten thousand lives are sacrificed needlessly from diphtheria in the United States each year." Ninety per cent of these deaths occur in children under five years of age. Science has now given to us a means whereby complete protection against this disease may be secured by the administration of toxin-antitoxin. The vast majority of people so immunized will never contract diphtheria even though exposed to it. Ten years of experience have proved the entire practicability of eliminating diphtheria from a community by widespread immunization of school children and more particularly of children of from one to five years of age. Therefore be it: Resolved that the health workers of the country assembled in the American Health Congress, with the best interest of the children of America at heart, strongly urge upon the people of the United States the opportunity thus afforded them of banishing diphtheria as a menace to their children, and be it:

Resolved, that this congress urge upon fathers and mothers of the land that they seek this protection for their young children either from the family physician or by taking advantage of the immunization services offered by boards of health, clinics, health centers and boards of education, to the end that diphtheria may be eliminated from our nation.

My plea is to the practitioner to carry into his families the gospel of prevention of this needless disease. The influence of the physician is far reaching, he can do much to convince the community in his own quiet way of the importance of the sore throat, its early recognition, its proper treatment and the like, but most of all he can do a great deal as a lone campaigner to encourage the use of toxin-antitoxin to the degree that diphtheria will become a rare disease.

THE SPAN OF LIFE*

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What is the span of life?

The ordinary man would be disposed to answer this question from an individual standpoint by saying: the span of my life is the time which will elapse between my birth and

* Read at Annual Meeting, September 1926.

death, or in another way. It will be my age at death.

But more than one variation of this answer has been proposed. Dr. William H. Welch, speaking at a banquet given Dr. Stephen Smith, when more than 99 years old, said that the old father of preventive medicine had already had a span of life of more than 100 years. "Because," said Dr. Welch, "the span of life began with conception and not with birth."

While this is true, it is not practicable to estimate the span of life on that basis. There are legal formalities, the registration of births, medical service, and other social and economic methods of establishing the date of birth. There are none such which can be used to establish the date of conception.

The simplest way of establishing the average span of life, or the span of life of the average man, is to average the ages at death, as shown on the death certificates. This method gives what might be termed the crude span of life, using a phraseology that is akin to the one used for death rates—the crude death rate. Scientific statistians will apply what they call corrective factors and from them they will obtain the expectations of life at different age periods, in different regions, for the different sexes, for different occupations, and so forth.

There is a relationship between death rates and the span of life of a community. If this relationship between these two—span of life and death rate—was perfectly adjusted in all of their ramifications, the span of life could be used to estimate the death rate, and the death rate could be used to estimate the span of life. Let me illustrate.

Dr. L. I. Dublin (Nation's Health, April, 1923, Vol. V, p. 189) says: "In 1920, the span of life in the registration area of the United States was over 55 years. The gross death rate in the registration area of the United States in 1923 was 12.3 per 1,000." For purposes of calculation, let us take a death rate of 12 as being normal. This means that one eighty-fifth of the population died in the year in question. Theoretically, this means a span of life of 85 years. But the span is 55. Conversely, if the span is 55 years, the death rate should be 18. Why the discrepancy?

The reason lies in the instability of the population. Population is the yardstick by which the death rate is determined. So long as this yardstick is instable, the relationship between deathrate and span of life cannot be close and accurate.

A stable population is one where the death rate equals the birthrate; the immigration rate equals the emigration rate; and where there is either no movement of inhabitants from one statistical unit to another, or where those who move out of one unit are equal in number to those who move in. In an ideal arrangement, this status quo must be maintained for several years for what might be termed a settling process; the emigration must be of the same average age as the immigrants; and those who move into the unit must average as old as those who move from it.

For the time we would be satisfied to stabilize by equalizing births and deaths; emigration and immigration, and population movement within the country. In time we shall have satisfactory correction factors for stabilizing by calculation. This will necessitate a factor for excess of birth over deaths, another for change in age due to immigration and emigration, and a third for the change in age due to internal movement of population. Of the three, the only one which will be difficult is that due to internal movement.

With such a normal rate, it would be possible to use the average age at death as shown by the death certificates, and from that to calculate both the span of life and the normal death rate for a community.

GRADING HEALTH DEPARTMENTS

With such a normal rate, it would be possible to grade health departments on the basis of death rates. At the present time it is not.

Very much the largest factor in fixing death rates now is the average age of the population and the distribution of the population into age groups of different sizes. Some of us recall the controversy a number of years ago between Dr. Tuttle, then health officer of the state of Washington, and Professor Wilcox. The controversy was over the low death rate of Washington. "Unnatural" said Wilcox. "Yes, but to be expected, with the age distribution of our population," replied Tuttle.

Table 1 and Figure 1 show the influence of age distribution on death rates. These tables and charts are taken from Glover's "U. S. Life Tables for both sexes in the original Registration Area—1910."

Using 12 per 1,000 as the normal death rate, we find that all children two years old and under, have death rates higher than that figure. The same is true of all persons 46 years old and older. The death rate for all ages between 2 and 46 is lower than 12.

Theoretically, if the average age of the population was 35, the nominal death rate would be 8.04. If the average age of the population was 58, the normal death rate would be 24.97.

Very special distributions of population in certain age groups would disturb these figures

somewhat. For instance, let us suppose a sudden and enormous influx of babies under 1 by the birth route and other routes as well. By reason of the very high baby death rate, this change in population would affect the death rate more than it would the average age.

Nevertheless, the facts are near enough right to warrant the statement that the average age of the population is the largest factor in determining the death rate—outranking any of the activities of the health department, or all of them.

The death rate of Chicago in 1917 was 14.79. Due to the great influenza epidemic the rate of 1918 was 17.01. No other event in the last quarter of a century has been so drastic, from the epidemiological standpoint, yet we note that a shift in the average age from 47 to 53 would cause an even greater increase in the death rate.

For a considerable number of years, the age distribution of the population has kept us in the serene waters represented by the age periods 3-48. In this calm bay there are stretches where the nominal death rate changes very little from year to year. With a span of life of 55 years, a falling birth rate, a falling excess of births over deaths, and with sharp limitations of immigration, we will soon pass out of these calm waters. We will presently reach a period of average age where, not only will a death rate of 13 and over be normal, but where the increase due to a single year of increase in average age will be marked. To illustrate: Should the average age of the population jump from 55 to 56 years, the jump in death rate of 1.69 per 1,000 would be normal. We now boast of a change of a fraction of an inch. We must frankly confess that our data for age distribution and population and average age of population must be improved before we can make much practical use of all this.

The 1920 and 1910 census gave the age distribution of the population between birth and 100 years, distributed in 5 year groups. From this, it is possible to calculate the approximate average age of the population.

A calculation of the average age of the Chicago population in 1920 and 1910 indicated that Chicago has a population that averages very young and, therefore, should have a low death rate, and that the average age is increasing every decade. But this calculation is far from accurate or satisfactory in any way.

A second table gives the population 25 and under, distributed by single years. If the census of 1930 could distribute the population in one year groups it would be easy to calculate average age and thereby obtain a proper age basis for calculating corrected death rates.

THE INCREASING SPAN OF LIFE

What is the evidence that the span of life is increasing? Of this, there is ample. We limit our quotations to some from Dublin (loc. cit.). He says: "In the registration area of the United States we find an increase of six years in the span of life between 1901 and 1920. In 1920 the span was over 55 years, or a gain of more than 15 years in the course of 65 calendar years.

In a hypothetical life table, which he thought attainable by the application of procedures then known, there should be an expectation at birth of 64.75 years. Before many years the biblical span of life to three score and ten applied originally to the individual man will apply to the average man.

Dublin says: "At the time of the last expectancy table, for England, 43.5 per cent of males, and 51.2 of females attained age 65.

THE SPAN OF EFFICIENT LIFE

This raises the question: Is there increased efficiency of the people who are 65 years old and over? Obviously, we cannot chloroform people who pass 50. We remember some unpleasant notoriety which followed one of Osler's jokes about that. Nothing is gained by prolonging the span of life unless there is a prolongation of the span of efficiency. On this point Dublin says: "As 65 is the age which closes the active working period of life, it must be obvious that that nation is the most productive, and its people enjoy the largest measure of longevity and, shall I add, prosperity, which can bring the largest proportion of its people to the threshold of old age."

There is no way of proving that the span of efficient life is keeping pace in its increase with that of the span of life. In truth, there is no way of proving that the span of efficient life is improving at all. And yet I am assured that as the result of our observation, common knowledge and common sense, we are all in agreement in sensing that the span of efficient life is now more than a decade longer than it was say in 1876. If this is accepted as true, two questions arise. The first is: what can we do to increase the health, comfort and efficiency of people of middle life and beyond? The second: what adjustment of social and business conditions is made desirable by the changing order?

First: In the introduction to Stanley Hall's "Senescence" (age 40 to 60); and "The Care of Senectitude" (age 60 to 100), speaking of his own quest for information, he said:

"This hygienic survey reinforced what I had realized before, namely, that physicians know very little of old age. Few have realized its destructive needs as they have in the dis-

eases of women and children and the rest. Thus, the older a man is the more he must depend upon his own hygienic sagacity for health and long life. Now that the average length of human life is increased and there are more and more old people, there is more need of studying them, just as in recent decades children have been studied—for medically, after the climatic, they constitute a class in the community that is somewhat alien, its intrinsic nature but little known, and the services it was meant to render but little utilized."

The outstanding diseases of these older age periods are the members of the cardiovascular group: heart diseases, kidney diseases, blood vessel diseases, including apoplexy, pneumonia and cancer. The cardiovascular group are more important because of the inefficiency they engender, than they are because of the deaths they cause.

Fisk calls them the "Silent Diseases" because they cause so many deaths as compared with the report of illness.

In a study of sickness in Hagerstown, Maryland, made by the United States Public Health Service, it was noted that the diseases of this group caused 34 per cent of all deaths and 3.2 per centage of all illness discovered. Fisk (How to Live, August, 1926), commenting on this report says: "It is a remarkable fact that the diseases chiefly responsible for death, are a negligible factor in the sickness rate. This fact causes Fisk to call this group of grave organic disorders—"The Silent Sickness." He says: "These silent sicknesses have come to be the most important that we have to deal with."

In this study, the organic degenerative diseases appeared to have a death rate that was out of proportion to the sickness rate. The lack of proper proportion was due to the fact that reported illness, rather than actual illness, was the basis of the study.

Much illness that was actual was not reported because neither the people nor the physicians know the importance of the variations from comfort and capacity which indicate organic degenerative diseases in the very early stages. These diseases are "silent" in the same sense that the air was silent before the discovery of the radio. They are silent because we do not know their wave lengths or, if we know them, we do not tune in on them. One of the changes which will come shortly is the practice of habitually tuning in on the right wave length for this group of disorders.

The increasing span of life and our future campaigns to increase the efficiency of life in its later decades brings into view a new objective for the physician and his patient. Men and women 50 and beyond are sclerotic in their organs and are creaky in their joints. They are stiff and without muscle tone and general physical, mechanical resiliency. A by-product of the hygiene of living, which will be followed to prevent cardiovascular diseases, will bring men to 60 more supple, less creaky, less sclerotic and more enduring than they now are. But for this to come about, physicians must develop a new science and probably a new specialty.

The last point is this: Social customs, particularly those which relate to employment, are under the influence of the past. It was good judgment 50 years ago to hold that people 50 years of age and over were unemployable. To hold that now is an instance of the long arm of the past reaching out and resting on customs to which it should not apply.

The increasing span of life, and the increasing span of efficiency calls for a readjustment of the rules of employment. We must reassign jobs and, in that way, create fields for the effective use of large numbers of men women 65 to 80 years of age. This will be economically sound and, at the same time, just and human.

1920 Average age	28.58
1910 Average age	27.41
Total expected deaths in Chicago in 1920	28,731
Expected death rate in 1920, according to Glover's table	10.65

AGE DISTRIBUTION OF POPULATION OF CHICAGO BY FIVE-YEAR GROUPS

Age Group	1910	1920
All ages	2,185,288	2,701,705
Under 5	223,767	272,455
5 to 9	191,294	258,229
10 to 14	185,799	223,042
15 to 19	208,268	201,864
20 to 24	250,817	246,824
25 to 29	236,747	291,369
30 to 34	194,941	263,852
35 to 39	172,512	235,730
40 to 44	145,261	180,312
45 to 49	119,295	154,518
50 to 54	90,469	126,795
55 to 59	56,169	89,793
60 to 64	41,478	66,949
65 to 69	27,569	38,570
70 to 74	16,923	23,919
75 to 79	9,407	13,549
80 to 84	4,237	6,176
85 to 89	1,602	2,250
90 to 94	400	571
95 to 99	71	135
100 and over	19	25
Unknown	8,138	4,778

Under 1	114.62	25—26	5.54
1—2	27.62	26—27	5.67
2—3	12.34	27—28	5.85
3—4	7.83	28—29	6.06
4—5	5.65	29—30	6.28
5—6	4.66	30—31	6.51
6—7	3.91	31—32	6.78
7—8	3.3	32—33	7.09
8—9	2.82	33—34	7.4
9—10	2.47	34—35	7.72
10—11	2.27	35—36	8.04
11—12	2.19	36—37	8.33
12—13	2.22	37—38	8.59
13—14	2.36	38—39	8.84
14—15	2.57	39—40	9.11
15—16	2.84	40—41	9.39
16—17	3.16	41—42	9.72
17—18	3.52	42—43	10.09
18—19	3.89	43—44	10.52
19—20	4.28	44—45	10.99
20—21	4.68	45—46	11.52
21—22	5.	46—47	12.08
22—23	5.19	47—48	12.63
23—24	5.29	48—49	13.18
24—25	5.42	49—50	13.77

50— 51— 14.37	79— 80—119.16
51— 52— 15.08	80— 81—130.28
52— 53— 16.01	81— 82—142.17
53— 54— 17.17	82— 83—153.06
54— 55— 18.49	83— 84—162.5
55— 56— 20.03	84— 85—172.97
56— 57— 21.72	85— 86—183.8
57— 58— 23.37	86— 87—194.85
58— 59— 24.97	87— 88—206.84
59— 60— 26.73	88— 89—220.13
60— 61— 28.58	89— 90—234.3
61— 62— 30.62	90— 91—249.62
62— 63— 32.96	91— 92—264.66
63— 64— 35.55	92— 93—279.9
64— 65— 38.25	93— 94—295.12
65— 66— 41.06	94— 95—310.17
66— 67— 44.08	95— 96—325.02
67— 68— 47.41	96— 97—339.74
68— 69— 51.12	97— 98—334.55
69— 70— 55.14	98— 99—369.73
70— 71— 59.52	99—100—385.46
71— 72— 64.29	100—101—401.91
72— 73— 69.38	101—102—419.14
73— 74— 74.82	102—103—437.37
74— 75— 80.78	103—104—456.77
75— 76— 87.37	104—105—477.48
76— 77— 94.35	105—106—500.22
77— 78—101.74	106—107—524.82
78— 79—109.78	

SUNLIGHT AS A DISINFECTANT

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The importance of sunlight as a disinfectant has been realized for a long time, but exact knowledge as to how much power to destroy bacteria the sun's rays possessed has been a matter of conjecture. What part of the sun's rays were bactericidal has only recently been investigated. This information has not yet become general, and directions have been so vague that no considerable number of medical authorities have ventured to make intelligent use of these rays. It was for information of this kind that the following studies were undertaken.

EXPERIMENT I

Does the Direct Sunlight Kill Bacteria and if So How Long Does It Take?

A petri dish is half filled with nutrient agar-agar. This medium is then smeared with staphylococcus aureus. The glass cover is replaced by a paste board cover, provided with a fenestra 1 cm. wide and 5 cm. long. This opening is covered with a quartz glass through which the direct rays of the sun pass on to the bacteria beneath. In order to learn about the length of time necessary to expose the bacteria to the sun in order to kill them, a card is placed under the quartz glass, but over the benestra in the card-board. The card is so placed that during the first half hour only about 1 cm. of the fenestra is open. At the end of each half hour period the card is withdrawn 1 cm., indicated by small perforations in the card-board by the side of the fenestra. (See Figure 1.)

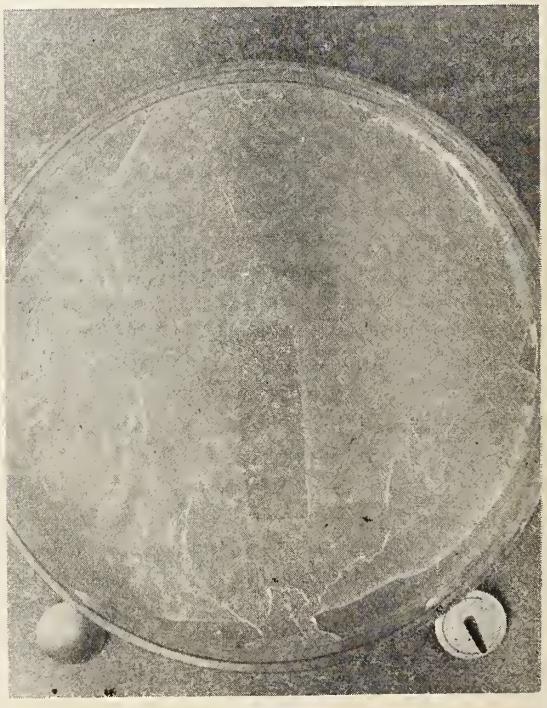
A thermometer is placed near the petri plate in order to register the temperature of the surrounding atmosphere. This arrangement is placed outside the window facing the sun.



(Figure 1)

Support for holding materials in the sun. (a) Culture plate. (b) Quartz tube containing standard methylene blue solution. (c) Thermometer. The shadow of the nail at (d) is made to fall on the nail (e).

After exposure, the card-board cover is replaced by the original glass cover and the petri dish is then placed in the incubator, at body temperature. The next morning a good growth appears on the medium except where the sun's



(Figure 2)

Petri dish showing clear area where Staphylococcus Aureus has been killed by exposure to direct sunlight.

* Read before Wayne County Medical Society, May 11, 1926.

rays have killed the bacteria. In this latter place the medium is clear. (See photograph. Figure 2.)

Table showing bactericidal effect of direct sunlight. December 26, 1924. Latitude 42°15′. Elevation above sea level, 800 feet.

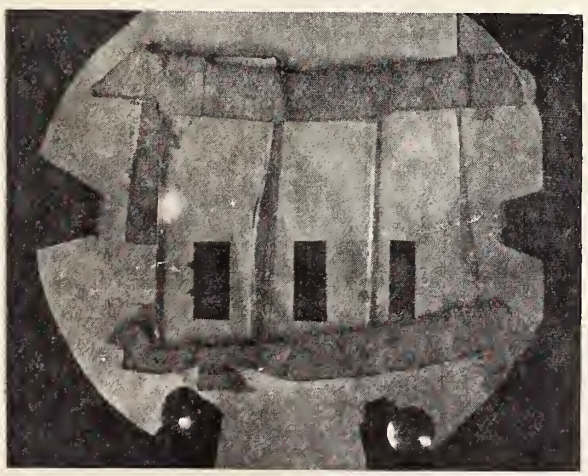
Hour	Temperature	Results on area exposed to sun
10:30 a. m.	23 degrees F.	No growth
11:00 a. m.	23 degrees F.	No growth
12 noon	23 degrees F.	No growth
12:30 p. m.	23 degrees F.	No growth
1:00 p. m.	23 degrees F.	No growth
1:30 p. m.	23 degrees F.	Faint growth
2:00 p. m.	23 degrees F.	Good growth

Result: One hour's exposure of staphylococcus aureus to direct sunlight, regardless of freezing temperature which surrounds the medium, will kill this organism.

EXPERIMENT II

Will Direct Sunlight, Passing Through Window Glass Kill Bacteria?

A petri dish containing nutrient agar-agar which was smeared with staphylococcus aureus, is prepared as in Experiment 1. The card-board cover in this experiment contains three fenestrae. One is covered with plate glass 8 mm. thick; the middle fenestra is covered with window glass 4.5 mm. thick; and the third fenestra is covered with a piece of photographic plate glass .8 mm. thick. The length of the fenestra is regulated at intervals by drawing the card out as in Experiment I. (See Figure 3.)



(Figure 3)

Card-board cover for a petri dish, which contains three fenestrae each covered with crown glass. The glass on the left is 8mm. thick; the middle glass is 4.5 mm. thick; and the glass on the right is .8 mm. thick.

The result is indicated on the following table:

Table Showing Bactericidal Effect of Direct Sunlight on Staphylococcus Aureus, When Passed Through Glass of Various Thickness.

Jan. 9, 1925 Latitude 42°15′ Elevation-800′ Temp. 36°F.

Hour	Time	Result on Areas Exposed to Sunlight		
		Thick Glass	Window Glass	Thin Glass
11:00 a. m.	6¼ hrs.	No growth	No growth	No growth
12 noon	5¼ hrs.	No growth	No growth	No growth
1:30 p. m.	3¾ hrs.	Faint growth	No growth	No growth
2:30 p. m.	2¾ hrs.	Some growth	Faint growth	No growth
3:30 p. m.	1¾ hrs.	More growth	Some growth	No growth
4:30 p. m.	¾ hrs.	Good growth	More growth	Some growth
5:15 p. m.	0 hrs.	Good growth	Good growth	Good growth

From the above table it will be apparent that the sun's rays shining through the thick plate glass kills staphylococcus aureus in a period of four to five hours; shining through window glass killing was complete in 3¾ hours; and through thin glass killing was complete in 2¾ hours.

The point to this experiment is that we do get pronounced bactericidal effect, although delayed, when the sunlight passes through glass.

EXPERIMENT III

Does Indirect Sunlight Have Any Bactericidal Power?

The apparatus and method used in Experiment I is used, except that the petri dish is made to face the northeastern sky, on a bright sunny day, so that no direct rays of the sun enters the dish. The results are expressed in the following table. Also see photograph of plate from which record was made.

NOTE: The area showing bactericidal effect is wider than the fenestra in the cover.

Mar. 23, 1925 Latitude 42°15′ Temp. 55°F. Elevation 800′

Hour	Time	Result
10:20 a. m.	6 2-3 hrs.	No growth
11:30 a. m.	5½ hrs.	No growth
12:20 p. m.	4 2-3 hrs.	No growth
1:30 p. m.	3½ hrs.	Some growth
4:10 p. m.	50 min.	Good growth
5:00 p. m.	0 hrs.	Good growth

From this experiment it is apparent that indirect sunlight does have a very marked bactericidal effect. In about four hours, the same effect is obtained that appeared with one hour of direct sunlight.

EXPERIMENT IV

Is the Sunlight More Effective During a Particular Part of the Day?

The same apparatus used in Experiment I is employed except that in place of a card to control size of the fenestra in the cover, a long card with a hole 1 cm. square near the middle is placed under the quartz glass so that the square hole is located over the lower part of the fenestra in the cover at the beginning of the experiment. At intervals this card is pulled up so that the light falls on a different surface

of the medium during succeeding hours. The results are indicated in the following table.

Mar. 26, 1925 Latitude 42°15′ Temp. 75° Elevation 800′

Hour	Time	Result
8:50 to 9:50 a. m.	1 hour	Little growth
9:50 to 11:20 a. m.	1½ hour	No growth
11:20 to 12:20 p. m.	1 hour	Considerable growth (cloudy)
12:20 to 1:20 p. m.	1 hour	No growth
1:20 to 2:20 p. m.	1 hour	No growth
2:20 to 3:20 p. m.	1 hour	Little growth
3:20 to 4:20 p. m.	1 hour	Good growth
4:20 to 5:20 p. m.	1 hour	Good growth

From this table it is apparent that the sun's rays became effective between 8 and 9 o'clock in the morning, and continued up to about 3 o'clock in the afternoon, after which there is practically no bactericidal power. The reason for this will be apparent later.

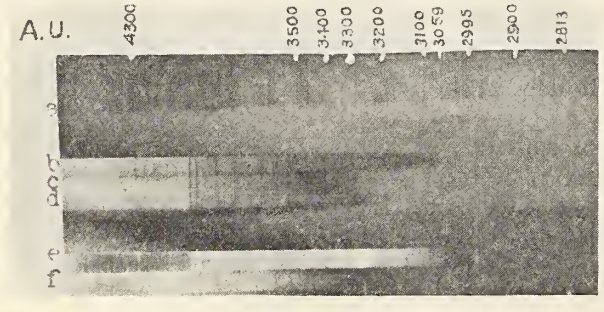
EXPERIMENT V

What Is It in the Sun's Rays That Kills Bacteria?

To answer this question our work was transferred to the physics department of the University of Michigan. A large size, and a small size, Hilger spectroscope together with arc lights and suitable quartz lenses, were made available.

A photograph of the solar spectrum was taken at about noon, October 28, 1924. (Figure 6.) The result indicates that the shortest wave length is 2998 Angstrom units. To express it simply, the wave length is nearly three ten-thousandths of a millimeter, or 299.8 millimicrons in length. This is in accordance with other well known observations of the kind.

The photographic plate upon which this picture was taken, is 10 x 4 inches. An old plate was cleaned and sterilized by heat. Then a tube of melted nutrient agar-agar was poured over the surface of the plate so that the



(Figure 6)

Photograph of spectrum (a) iron arc, (b) solar, (c) solar light through plate glass, (d) solar light through window glass.

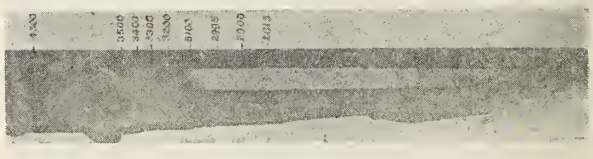
medium was about one-eighth inch thick. When the medium has hardened a heavy suspension of staphylococcus aureus was painted over the surface of the agar. The plate was then placed in the plate holder in such a way that the surface of the agar-agar occupied the same plane that would be occupied by the surface of a photographic plate. The plate holder was then placed in the spectroscope so that the spectrum was focused on the surface of the medium. Since it was difficult to hold a heavy instrument of this kind so that the sun's rays were always parallel to the axis of the collimator, the difficulty was obviated by using a stationary arc lamp as a source of light. Light waves of the same length and intensity from whatever source should react the same. Since the spectrum of an iron arc has certain characteristic lines which are easy of identification, an arc lamp with iron terminals was used as a source of light. The spectroscope contained a quartz prism so that short waves down to about 2200 A. U. were apparent on the photographic plate.

When the plate with the bacteria on it had been exposed to the spectrum for a given time, it was removed and placed in a moist chamber of an incubator at body temperature for over night. There appeared a luxuriant growth except where the bacteria had been killed by the rays of light in the spectrum. After incubation, the plate was fumigated with formaldehyde gas and the culture medium was allowed to dry. Then a photographic negative of the spectrum of an iron arc was superimposed on the dried culture in order to identify the wave lengths which killed the bacteria. The following table indicates the longest light waves which were observed to kill the organisms.

Organism	Period of Exposure
Staphylococcus Aureus	30 minutes
Staphylococcus Aureus	1 hour
Staphylococcus Aureus	2¾ hour
Staphylococcus Aureus	5 hours
B. Typhosus	1 hour
B. Diphtheria	20 minutes
B. Diphtheria	1½ hour

Range of Lethal Light Waves noted on the above.

2850 A. U. to 2300 A. U.
2950 A. U. to 2411 A. U. and below
3000 A. U. down
3100 A. U. down (See Fig. 7)
2950 A. U. to 2480 intermittent
2700 A. U. to 2490 intermittent
2700 A. U. to 2490 intermittent



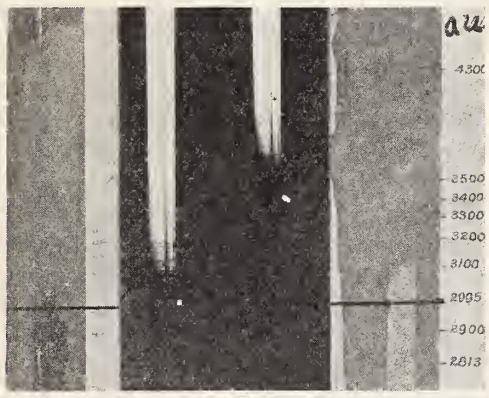
(Figure 7)

Culture of Staphylococcus Aureus exposed 5 hours to spectrum of an iron arc. Current—8 amperes, about 10 volts. Terminals 6 mm. in diameter. A quartz lens 3½ inches in diameter with 8-inch focal length, focused light on slit of spectroscope. The slit was 5 mm. in width.

From the above table it will appear that with limitations, the longer the exposure, the longer wave lengths may be effective in killing bacteria. For periods of 30 minutes, wave lengths of 2850 A.U. and shorter, may be effective. For periods of one hour, a wave length of 2950 A.U. and below may be active; while for longer periods of five hours, a wave length of

310 A.U. will kill bacteria. Bernard and Morgan with an eleven ampere current were able to produce a bactericidal effect with light waves up to 3287 A. U.

The following photograph (Figure 8) correlates the solar spectrum with the bacterial cultures which have been killed by the arc spectrum. Further discussion will be found in report of next experiment.



(Figure 8)

(a) Culture Staphylococcus Aureus exposed to spectrum of iron arc for three hours. Clear area shows where bacteria have been killed. (b) Spectrum of sun at noon, April 1, 1925. (c) Spectrum of solar rays which have passed through plate glass 6.0 mm. thick. (The white dot indicates the position of the shortest line on the negative.) (d) Culture staphylococcus Aureus exposed to iron arc spectrum for five hours.

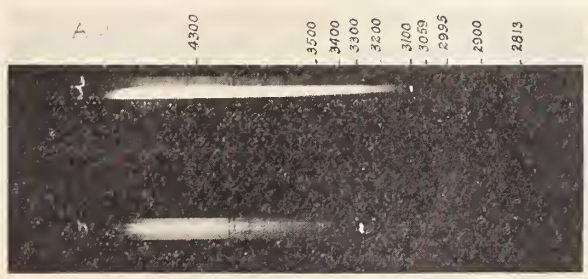
The clear area shows where bacteria have been killed. The solar spectrum extends down to the horizontal black line. The clear areas on cultures above the horizontal line indicate the upper range of the arc spectrum which has bactericidal property. (See a and d).

EXPERIMENT VI

Do These Short Waves in the Suns Rays Vary in Amount During the Day?

The solar spectrum above mentioned was taken about noon on April 1, 1925. The shortest wave noted was 2995 A.U. A photograph was taken of the solar spectrum again at 7 o'clock in the evening, when the sun was just above the horizon. (See cut—Fig. 9.) The shortest wave length was about 3100 A.U.

This is in confirmation of the idea that the atmosphere absorbs the short light waves before they reach the earth. Since the minimum thickness of the atmosphere through which the sunlight passes is at noon, we may expect the greatest penetration by the shortest waves at about noon; they are absent during the late afternoon, as indicated in Figure 9.



(Figure 9)

Photograph of (a) solar spectrum at 7 p. m., April 1, 1925. Latitude 42° 15'. Elevation 1,000 ft. above sea level. (b) Same as (a) except that light passed through window glass 4mm. thick.

These experiments indicate that (a) solar light wave lengths of 2995—3100 A. U. are present during the middle of the day, but are absent during the latter part of the day; (b) in Experiment V it was noted that these light waves had bactericidal properties; (c) in experiment IV it was noted that the sun's rays have bactericidal power only during the middle of the day.

We may, therefore, conclude that the part of solar light which has bactericidal properties, is that part of it which has a wave length shorter than 3100 A. U. If the light is sufficiently intense, waves which are a little longer may be effective. This conclusion shoudl not preclude the possibility of longer waves being effective on organisms sensitized by fluroescent substances—a subject which needs further observation.

EXPERIMENT VII

Does Window (Crown) Glass Prevent These Short Light Waves Which Have Bactericidal Effect, From Entering a Room?

This experiment was divided into two parts. Part A required *light from an arc lamp,* such as above described to pass through glass of various thickness before entering the spectroscope when a photograph was taken of its spectrum.

Part B required *sunlight* to pass through glass of varied thickness before entering the spectroscope, when a photograph was taken of its spectrum.

Part A—A photograph of the spectrum of zinc-cadnium spark was first taken for purposes of identifying spectral lines of a given length. The photographic plate was then moved so that a different part of the same plate could be exposed. A piece of window glass was then placed in front of the slit of the spectroscope. A beam of light from the spark was then allowed to enter the spectroscope and its spectrum was recorded on the photographic plate. (See Fig. 10.)

Part B—A photograph of the spectrum of an arc was first taken for purposes of identifying light waves of a given length. Then the instrument was placed in the sun so that a photograph of the solar spectrum was taken. Then the sunlight was passed through glass before it entered the spectroscope, and a photograph was taken. The following table summarizes the results of these two experiments. (See Fig. 11.)

Table showing shortest wave lengths which passed through glass:

Part A

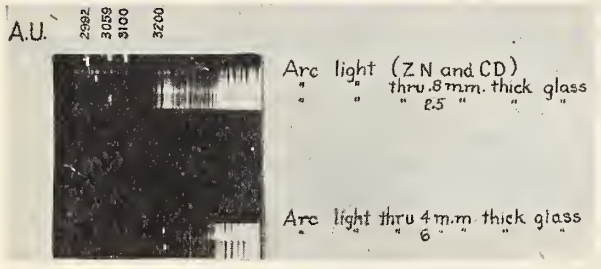
Source of light	Thickness of glass	Shortest wave length identification lines
Spark (cd. and zn.)	8 mm.	3000 A. U.
Spark	2½mm.	3059 A. U.
Spark	4 mm.	3200 A. U.
Spark	6 mm.(plateglass)	3200 A. U.

Part B

Sunlight		2992 A. U.
Sunlight	4 mm.	3110 A. U.
Sunlight	6 mm.	3180 A. U. about

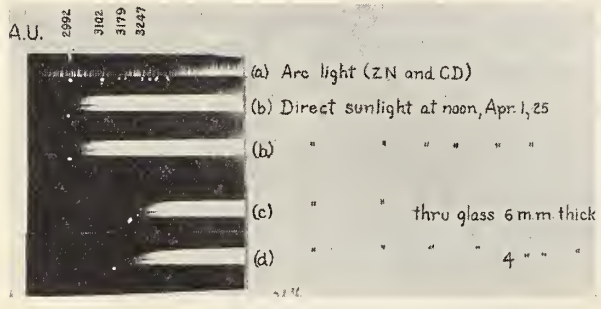
(See Figures 10 and 11)

From the above table it will be apparent that these solar short waves (2992 to 3110 A.U.) are strongly absorbed by window glass. Yet, from Experiment II it was evident that bactericidal power does occur from the light waves which pass through glass, *but a long time is required.* It is probable that the few seconds period of exposure to the photographic plate is not sufficient to register the shortest waves which would pass through the glass in three to five hour. While we have no evidence from



(Figure 10)

Photograph of arc spectrum after it has passed through glass of varied thickness. The photograph has been touched with a white dot to indicate the shortest wave length which is visible in the photographic plate.



(Figure 11)

Photograph of spectrum. (a) arc light, (b) solar light, (c) solar light through 6 mm. thick window glass, (d) solar light through glass 4 mm. thick. White dots indicate the shortest wave length which is visible on the photographic plate.

this experiment that these light waves do pass through glass, yet Experiment II indicates that they must pass through because of the bactericidal effects which ensue when sunlight passes through glass.

EXPERIMENT VIII

Is There Any Simple Method of Detecting the Presence of These Short Waves in Sunlight?

The observation has been made that methylene blue, dissolved in acetone will bleach out in the presence of these short light waves. A standard solution of methylene blue was prepared as follows:

Sol. A.	1% methylene blue	5.8 cc
Sol. B.	Acetone	30. cc
Sol. C.	Distilled water	64.2 cc

(London Lancet, April 12 and Aug. 9, 1924, pages 745 and 299)

The methylene blue solution was placed in several quartz tubes and the ends sealed with sealing wax. Quartz tubes about 3 mm. bore and 5 cm. long were used. One tube (A) was placed outside the window in direct sunlight. A second tube (B) was placed on the inner side of the window on the sash, so that the sunlight fell directly upon it, but passed through the glass.

A third tube (c) was placed on the table in the center of the room with the window raised so that the light from the sky, but not directly from the sun, would fall on the tube. And a fourth tube (D) was attached to a picture frame on the wall so that all light which came to it was reflected or came through window glass. The results are indicated in the following table:—

Table which shows effect of sunlight on methylene blue:

Tube	Time of Exposure
A	1½ hours
Result—Methylene blue bleached out colorless	
B	7 hours (all day)
Result—Methylene blue about half bleached out	
C	4 hours
Result—Methylene blue just about bleached out	
D	7 days
Result—Mythylene blue bleached a little	

From the above table it is apparent that the light waves which bleach methylene blue are numerous in direct sunlight, do not pass through glass very readily. They are, however, present in considerable amounts in the dispersed light of the sky, but not very numerous in reflected light from the walls of the room. From Experiment VII we know that the short light waves which have bactericidal properties are numerous in direct sunlight, do not pass readily through window glass, and are present in considerable amounts in skylight as indicated by their bactericidal power. (See Exp. III.) Hence, we feel that the light waves which bleach methylene blue are those short solar light waves which have bactericidal power.

EXPERIMENT IX

Will This Method Give Information Regarding the Influence of a Smoke Screen Over a City on the Presence of These Solar Short Waves Which Destroy Bacteria?

In order to determine accurately the degree of fading of methylene blue solution, a sample of standard methylene blue was set up in

glass tubes of the same size as our quartz glass tubes. Each tube contained 1 cc. The first tube contained .1 cc. standard methylene blue and .9 cc. water. The second tube contained .2 cc. standard methylene blue and .8 cc. water, etc. The tenth tube contained only standard methylene blue. It was found that the blue in these tubes would soon fade. So that the following method was employed which worked satisfactorily. A fresh set of tubes was prepared and an artist who was skilled in the use of water color paints was employed to reproduce each of these colors in parallel horizontal lines, about one-half inch apart, across a sheet of white paper. The deep blue colored line was numbered 10, the next color 9, etc., to 0 for no color. This sheet of paper with the color scale on it was kept in a book. A strip of the paper about an inch wide was cut across the colored lines above mentioned. This strip was pasted on a board and was used for a color scale until it became faded or soiled, when another strip was cut off and used as indicated. It was a simple matter to compare the color of the methylene blue which had been faded out by sunlight in quartz tubes with this color scale, so that a definite numerical statement could be recorded for each reading.

A quartz tube containing standard methylene blue was placed on top of a high building so that the light from a wide horizon could be obtained. At the same time a similar tube of standard methylene blue was placed out on the porch of a Tuberculosis Sanatorium, twenty-five miles distant. The following table gives the readings at the two places.

Table showing effect of bleaching by the sun on methylene blue in two different localities—one a city under a smoke screen, the other in open:

	City (Elevation 800′ above sea level)					Country (Elevation 1,000′ above sea level)		
Date	Hour	Weather Condition	Reading Methylene Blue Scale	Number of Points Bleached	Hour	Reading on Mythylene Blue Scale	Number of Points Bleached
Jan. 10 to Jan. 12	1 p. m. to 2 p. m.	Hazy Sunshine Snowing	7 6	1	1:10 1:10	7 3	4
May 20 to May 20	8:30 a. m. to 5:00 p. m.	Sunshine Hazy	10 9	1	8:30 a. m. 6:00 p. m.	10 4	6

From the above observations it is clear that the sun's rays at the sanatorium had a greater bleaching effect on methylene blue than it had in the city. Hence, from the above experiments the sun's rays have greater bactericidal effect at the sanatorium than in the city. It is noted that there is much more smoke in the air over the city than at the sanatorium.

LITERATURE

Daylight consists of (a) direct solar radiation; (b) diffuse radiation from the sky; and (c) radiations reflected from surroundings[2]. The nature of radiant energy is in doubt, but many phenomena of light indicate that radiant energy is propagated in the form of wave motion, and waves are transverse to the line of propagation. How the energy is actually propagated is not known.

The sun delivers to 1 square-centimeter of the earth's surface, 1.932 calories per minute all the time. This is equivalent to 1.45 horse power per square yard yer minute. This energy is electromagnetic in character and proceeds through space at the rate of 186,300 miles per second. It is possible to break up a beam of light into it component waves by passing it through a quartz prism. This is known as spectro-analysis. Long waves will be deviated least and short waves will be deviated most from the line of propagation of the beam. Waves which have a length of about 370 millimicrons to 770 millimicrons are visible to the eye. Those of the latter length give to the eye the sensation of red, while those of the former length give the sensation of violet. This group of waves form but a small part of the range of electromagnetic vibration. The shortest known waves are found in radium emanations, and the longest are the Hertz waves, represented by the radio in wireless communication.

In the study of light waves, it was early found that *longer* waves may be found than those which give the sensation of red. They are manifested as heat and are called infra red waves. They are invisible. Again, *shorter* waves than those which give the sensation of violet are found. These are called ultra-violet waves. They are also invisible but are manifest by photographic and biological reactions such as injury to living cells, and modification of growth processes. However, no light waves are effective unless they are absorbed, as pointed out by Grotthus over 100 years ago.

When substances are heated to the extent that they glow, these waves are emitted. Lamps and arc lights are common instruments for the emission of these waves. Arc lights emit rays which are especially rich in short or ultra violet waves. Since our study is confined to the activity of solar light, we must record what facts we can find regarding these radiations, particularly those of short wave length.

The atmosphere which surrounds the earth is perhaps 100 miles thick[1]. Solar light, rich in short waves reacts with the oxygen of the atmosphere, making a shell of ozone around the earth. This shell of ozone, and free oxygen absorbs the shortest solar waves. When the remaining solar radiations reach within a few miles of the earth's surface, another shell of water vapor is encountered, which further absorbs the short solar radiations. Near to the earth, varying amounts of oxygen, dust, smoke, pollen, ammonia, are present as sea level is approached. These materials still further remove the short waves from the solar radiations, so that the radiations of the solar spectrum stop very sharply, at about 290 millimicrons. Other important factors are the latitude, elevation, and time of day. The following tables by Cornu, reported by Luckiesh, indicates the lower limit of the solar spectrum at various altitudes of the sun (time of day.)

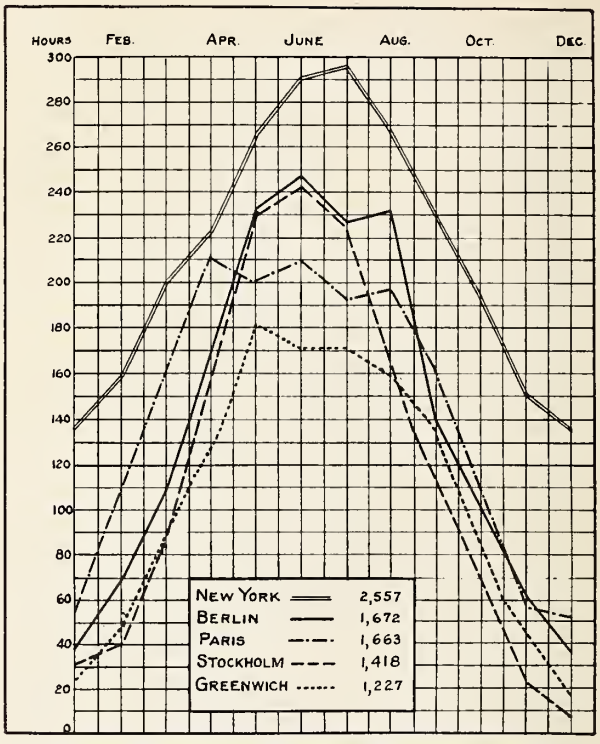
Time of day Hours	Minutes	Wave length lower limit in millimicrons
10	30	295.5
12	02	295
1	18	295.5
1	50	297
3	09	299
3	40	304.5
4	17	304.5
4	38	307

It is thus apparent that the shortest waves of the raditions are decreased by increase in air mass. Water vapor absorbs waves of about 175 millimicrons in length. Oxygen absorbs waves of about 186 millimicrons in length, as the temperature of the oxygen rises, this absorption band widens. The ozone in the atmosphere is equal to about 3 millimeters in thickness at atmospheric pressure. A layer of ozone 25/1000 millimeter in thickness at atmospheric pressure will absorb half the radiations of 225 millimicrons in length, so that ozone together with fog, dust, and smoke, permits but few solar waves shorter than 300 millimicrons to reach the surface of the earth.

The duration of sunshine at various latitudes is of interest.

Latitude degrees	Dec. 22 Hours	Minutes	June 21 Hours	Minutes
0	12	7	12	7
10	11	32	12	43
20	10	35	13	20
30	10	13	14	05
40	9	19	15	01
50	8	04	16	23
60	5	52	18	52
65	3	34	22	03

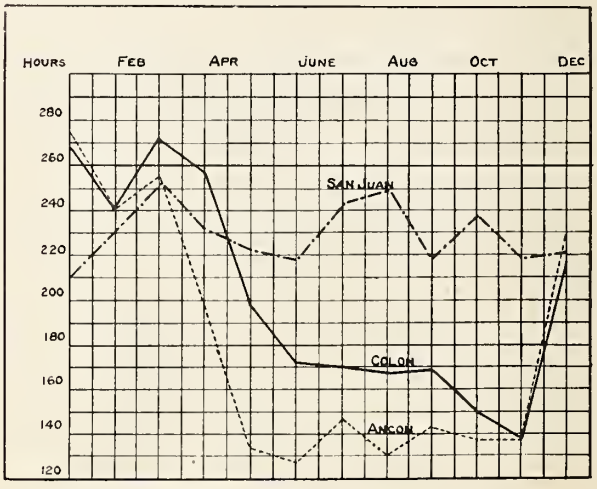
Dr. Alfred Hess has recently published[3] a chart which shows the number of hours of sunshine by months in five large cities of the north temperate zone, as follows:



AMOUNT OF ACTUAL SUNSHINE (YEARLY AVERAGE) IN FIVE CITIES IN THE TEMPERATE ZONE

Hess-Jour A M.A -Apr 4, 1925

He also presents a table which shows the number of hours of sunshine which appear monthly in three tropical cities.



AMOUNT OF ACTUAL SUNSHINE YEARLY IN SOME CITIES OF THE TROPICS AND WEST INDIES.

ANCON ---- 2,154
COLON —— 2,413
ST. JUAN—·— 2,720

Hess-Jour. A M.A.-Apr 4, 1925

The point to these two charts is that while the total number of hours sunshine in two different places may be nearly the same, the effect of the sun's rays may be different, presumably depending upon the kind of rays which may be present. Dr. Hess feels that light wave lengths of 302 to 313 millimicrons in length reduces the presence of rickets among young children. In New York there is considerable rickets. In the tropical cities above mentioned

there is no rickets, apparently due to a richer amount of these short solar wave lengths in the sunlight of tropical cities.

The short waves are present in sunlight during the hours of 9 to 3 in the summer, and 11 to 1 in the winter. The short waves are most evenly distributed through the seasons at high altitudes.

The distribution of radiant energy from the sun and sky is of interest. Langley[4] estimated that of the solar radiations reaching the earth, 60 per cent was infra red and the remaining 40 per cent were visible and ultra violet radiations. The molecules of dry air scatter radiations of short wave length. At sea level the sky furnishes 32 per cent as much radiation as the direct high sun. At elevations of 6,000 feet the sky furnishes only 7.2 per cent as much. The intensity of short waves in diffuse light is variable on account of reflections from surroundings (snow good reflector of these waves), suspended foreign particles, and water vapor. These large particles relative to the size of molecules reflect short light waves, and tend rather to diminish the proportion of short waves[5]. Fabry and Buisson by special spectroscopic methods[6], obtained a photograph of the solar spectrum by exposure to the sun for 75 minutes. This photograph registered a wave 289.84 millimicrons in length. This was obtained about noon, June 7, 1920. The intensity of this wave is about one millionth that of a wave 315 millimicrons in the same spectrum. In diffuse sky light at sea level one would expect these short waves to be practically eliminated by the coarse dust and smoke particles which are found in the lower atmosphere.

Window glass also absorbs these short light waves, depending upon thickness and the chemical composition. According to photographic meaurements and biological tests ordinary glass does not permit light waves shorter than 300 milimicrons to pass through. Light waves at 350 milimicrons begin to diminish in amount in passing through ordinary window glass[2]. The amount of shorter waves which pass through rapidly decreases until at 300 millimicrons practically none pass as determined by photographic methods. However, in the course of time a perceptible amount of shorter waves do pass through. These short waves will pass through quartz glass almost without opposition. Hence, the necessity for using quartz glass in the optical parts of spectroscopes. It is impractical at present from a manufacturing and commercial point of view to make glass for windows which is transparent for these short waves.

The lethal effect of light waves is confined to the ultra violet. To be sure, heat waves may destroy life, but as it is usually represented in solar radiation no lethal effect occurs except when the short light waves are present, as demonstrated by Downes and Blunt, nearly 50 years ago. Bernard and Morgan[8], 1903, using various arc lamps with terminals of iron and cadminum, or aluminum or carbon with eleven amperes current, with light passing through .5 mm. slit in the spectroscope, found the spectrum killed cultures at wave lengths 328.7 to 226.5 millimicrons in periods of 15 to 45 minutes. Cultures of B. coli, B. substilis, M. tetragenous, S. aureus, and B. tuberculosis, were used.

Browning and Russ[9] repeated these experiments, using a tungsten arc, and added B. typhosus and meningococcus, with practically the same results except that the longest effective wave was 296.0 millimicrons. Bayne-Jones and Van der Lingen[10] by the use of glass filters, claim sunlight kills staphylococcus aureus by the use of wave lengths up to 360 millimicrons. If this were true there should be killing of these organisms in the late afternoon when these waves are still abundant. In our experience no bactericidal effect by sunlight is evident at this time of day. Hertel[11] experimenting with fertilized cells found that the injury to the cells, and the retarded development due to the wave lengths of 280 millimicrons was dependent upon the intensity of the radiation. Using direct sunlight, injury was marked, but by using diffuse daylight the cells were not injured unless they had been sensitized with a florescent substance.

Rosenau[12] reviewed the literature on the viability of tubercle bacilli, and showed that direct sun rays would kill them in a few hours.

Tappiner and Jodlbauer[13] showed that when living organisms were suspended in dilute solutions of florescent substance ,and then were exposed to certain long light waves, injurious effects would be noted. How far this principle prevails in nature needs further investigation.

How do these short radiations of light kill bacteria? The answer to this question involves several other questions. What is light? Of what are bacteria and other living cells composed? How are their constituent parts put together? While information on these questions is not complete, there is an interesting array of observations which permit glimpses into these most interesting fields of research. A review of this field cannot adequately be presented in a summary of this kind. Suffice it to say that it is conceived[14] that the rate of rythm of these light waves may synchronize with the vibrations of certain molecules which compose the bodies of bacteria or other living cells, and by so doing neutralize the vibration of the molecule in the cell. In other instances

they may increase the amplitude of the vibrating molecule so that it goes out of relation to the other molecules of the cell. Too great an interference with the molecules of a cell may damage the functional activity of the cell.

Many physicists state this phenomena in terms of electronic activity. Light energy absorbed by a body may increase molecular motion. If the incident light has a small enough wave length to produce oscilations of the electrons rather than in the molecules or atoms, the absorption of light may result in the escape of electrons from the atoms, causing a change in valency, and thereby a chemical reaction.

Janet Clark[15] showed that egg albumen would coagulate under the influence of ultra violet light when the egg albumen was held in solution at a greater hydrogen ion concentration than 4.8—its isoelectric point. The absorption of light having a wave length around 300 millimicrons causes an emission of electrons. Some of the particles would lose their negative charge while others would acquire a positive charge. The particles having a positive charge would unite with those having a negative charge and coagulation results.

Coagulation or floculation is observed in large uncellular organisms as an initial injury in lethal doses of ultra violet light.

The above outline indicates briefly the theoretical explanation for the death of bacteria due to sunlight. Details of these interesting conceptions must be acquired from monographs, such as those of Andrade[16] and Perrin[17].

SUMMARY

An experiment is presented which shows that in a certain latitude, elevation, season of the year, and middle of the day, sunlight will kill staphylococcus aureus in one hour.

Again, an experiment is presented which shows that sunlight under the conditions above mentioned, and after passing through plate glass 8 mm. thick, will kill staphylococcus aureus in 4½ hours.

Another experiment shows that indirect sunlight such as skylight from a northern exposure under the conditions of the first experiment will kill staphylococcus in about four hours.

An experiment is presented which shows that sunlight under the conditions of Experiment I during the latter part of March will become effective in killing staphylococcus aureus at about 9 o'clock in the morning, but has very little effect after 3 o'clock in the afternoon.

An experiment is given which shows that when an iron arc of a certain size is used as a source of light, if this light is passed through a spectroscope, and the spectrum is spread on the surface of a bacteriall culture, bactericidal effect will be first noted in that part of the spectrum which is composed of wave lengths between 2300 and 2850 Angstrom units. On longer exposure longer wave lengths are noted to be effective. No longer wave length than 3100 Angstrom units was observed to be effective even after five hours' exposure.

An experiment is presented which shows that at noon of April 1st at the above mentioned elevation and place, the shortest solar wase length observed was 2995 Angstrom units. At 7 o'clock in the evening the shortest wave length ovserved was 310 Angstrom units. Since bactericidal properties of sunlight for staphylococcus aureus were not apparent after 3:30 p. m. it would appear that the effective rays in sunlight must be confined to those wave lengths which are apparent at noon, but not apparent in the late afternoon. These waves are between 2900 and 3100 angstrom units in length.

An experiment is presented which indicates that methylene blue in acetone is bleached by the solar rays which have bactericidal activity.

CONCLUSION

What do the above experiments mean to the health officer? The health officer may, with confidence, rely on sunlight, and sky light to destroy bacteria if exposed to it for two hours during the middle of the day.

With-drawing the draperies and raising the shades, even if the windows are closed, if the sun light and sky shine can enter, the destruction of bacteria will gradually be brought about.

By means of the bleaching of acetone methylene blue, the health officer may easily determine the most active periods of the day in each season of the year when the sun and sky shine may be most useful. These periods will vary with the altitude, latitude, season of the year and condition of the atmosphere. The period of the day when sunlight has bactericidal power is shorter in winter and longer in summer.

Washing the woodwork or parts of furniture likely to have become contaminated will break up covering matter which conceal bacteria, so that the sun light may become more effective.

Open books, feathers, draperies, rugs, cushions may be amply disinfected by placing out in direct sun light for two to four hours during the middle of the day. They must be so placed that the sun can have free access to their surfaces.

Health officers should interest themselves in preventing a smoke screen to come over their community. A smoke screen will deprive that community of the solar rays which destroy harmful bacteria. A smoke screen will also deprive a community of these solar rays which

stimulate nutrition in young childhood. A smokeless town will have less rickets.

Bacteria live a long time in dark rooms, hallways, and basements when they are damp. The sun can have no effect on bacteria in these places. Hence the importance of building supervision, so that buildings shall not be erected which are not adequately lighted by sunlight. Store basements cannot rely on incandescent lamps to disinfect the air and woodwork, except only as drying is useful.

The association of fluorescent substances to assist the longer light waves in the destruction of bacteria needs further research. The lethal effect of drying as produced by the infra-red waves is recognized as an important means of destroying bacteria.

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SOME RESIDUA OF EPIDEMIC ENCEPHALITIS

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No more interesting problem has confronted the physician in recent years than the recognition of epidemic encephalitis and its residua. In fact, encephalitis has established its claim to recognition as a separate disease chiefly by the character of its late manifestations. These residua are seen so frequently that undoubtedly we have recognized but a small percentage of the cases of acute encephalitis. This does not necessarily reflect on the diagnostic ability of our profession, for the several epidemics have varied so much in symptomatology that some confusion was inevitable. Sometimes a physician was not consulted until residua appeared.

This topic has not been an unfamiliar one in medical literature, even before the flood of contributions during the past ten years. The lethargic phase was described in the Tubingen Schlafsucht of 1712 and the myoclonic phase by Dubini in his description of an epidemic of "Electric Chorea" in 1846. Various epidemics have been recorded, the most extensive being the present one, which, starting in Vienna in 1916, spread to France and England, and reached America in 1918. It appears to have continued with periodic exacerbations ever since. It is remarkable that the outlying districts of the state have furnished us as many cases as the more densely populated centers, an observation which can be paralleled in our experience with poliomyelitis.

While much laboratory and experimental work has been done, we feel that much more evidence must be presented before we can say that the etiology of the disease is definitely establishd. Is it due to a filtrable virus or to the streptococcus described by Rosenow? Has it any relationship to influenza or to herpes febrilis? What is the incubation period and how is it transmitted? To all of these questions we must reply that we do not know.

The essential pathological process in the acute phase, is a perivasculuar infiltration chiefly affecting the minute vessels of the midbrain and basal ganglia. This is followed by focal necroses of various sizes, and while there is some degeneration of nerve cells, the brunt of the inflammatory process falls on the interstital tissues and vessel walls. The resulting fibrosis is not soon limited, but may continue for months or years, thus interfering with nerve paths. In the chronic phase, there is hyaline degeneration of the vessel walls, followed by calcareous degeneration, not only of the

walls, but of the thrombi and minute clots. Flakes of calcium may also be seen around degenerated ganglion cells in circumscribed areas in the midbrain and basal ganglia. As any part of this important, but little understood area of the brain may be affected, it is not surprising that there should be such variability in the symptoms, signs, and residua of the disease. In fact, it would seem that the many careful clinical and pathological studies now being carried on, may eventually give us much information about the physiology of this area.

THE PARKINSONIAN SYNDROME

In 40 per cent of the cases which we have considered post-encephalitic, the clinical picture was that of the Parkinsonian syndrome. This term was adopted by the French school because of the resemblance of the symptoms to those of presenile paralysis agitans. Our patients were chiefly young adults and the symptoms were recognized after a period of 6 to 30 months normalcy. Hall of Sheffield[1] has emphasized the points of resemblance and difference between this syndrome and paralysis agitans. Parkinson originally described three primary symptoms—tremor, rigidity, and loss of associated and automatic movements. This syndrome is frequently *something less* than paralysis agitans. For example, the tremor may be less manifest and is usually coarser than in paralysis agitans. The distribution may be less generalized and we have seen cases where only one arm was rigid. In two instances, facial stiffness was unilateral. It is frequently *something more* than paralysis agitans. In one of our cases there was an increased knee jerk and an extensor response. Rigid or unequal pupils may be seen. One of our patients had a facial tic. There would seem to be more mental depression and in some instances we have noted definite mental deterioration. Its *mode of onset and progress differs* from paralysis agitans. Occurring in younger people, it progresses more rapidly than does paralysis agitans. The immobile facies occurs much earlier. Some patients have trouble in masticating and in properly protruding the tongue. Many of them drool saliva freely because the muscles of the mouth and face are so stiff that saliva cannot be readily swallowed. There is no difference in the attitude and gait. The differential diagnosis usually gives little trouble. However, Dr. J. Garvey, of Ann Arbor, in a personal communication, reports a patient with this syndrome who had been operated upon for exophthalmic goiter. He states that the basal metabolic rate is increased in all of these Parkinsonian cases.

EXCITO-MOTOR RESIDUA

Many excito-motor phenomena may be observed after encephalitis. Spasmodic tics are rather common. One of our patients who had a prolonged attack in 1922 has recovered completely with the exception of a rhythmic tic of the right forefinger. We have seen patients with facial tic and one who made clicking noises with his tongue for several weeks, after the acute attack. We report a case illustrating a myoclonic group.

"Miss G. K. aged 18 had an attack of encephalitis in 1922. Myoclonic features were present during this illness which lasted three weeks. She made a good recovery, but gained 50 pounds in weight during the next year. In 1924 she had a "nervous breakdown" characterized by headache, tremor, and "nervousness." After recovery, she again gained in weight. In July 1925, she had another relapse of a similar character. She entered Hurley Hospital on Jan. 31, 1926 complaining of headache, drowsiness, and muscular twitching. Her weight was 190; basel metabolic rate, minus 20; blood sugar, 68 mgm.; radiogram of sella normal. She had a respiratory tic, occuring about every two minutes, when she would suddenly hold her breath and the accessory muscles of respiration would go into spasm. She had involuntary, shocklike, clonic contractions of the left biceps, pectorals and deltoid. The amplitude was variable and the rhythm rather disorderly, although at times it became regular at a rate of about eight contractions a minute. The movements were aggravated by exertion and by attempts at volitional control, but they ceased during sleep. There was moderate rigidity of these muscles."

The possibility of hysteria was considered but no stigma of functional disease could be elicited. The contractions resembled those of paramyclonus multiplex, but differed in being unilateral. The late appearance of the residua, as well as two definite relapses, would suggest that the virus of this disease continues to live and to do harm for a long period after the onset. Ramsey Hunt explains the myoclonic phenomena as being due to irritative lesions of the striatal mechanism[2].

RESIDUAL PARALYSES

Residual paralyses are not as common as might be expected from a disease affecting the central nervous system so extensively. One frequently sees pupils that are unequal and that react badly or not at all to light and accommodation. We have only seen one instance of hemiplegia.

"Mrs. G., a housekeeper of 32, was seen in June 1923, with an acute throat infection. On the third day she had a diplopia and was somewhat delirious. On the fourth day she sank into coma. The blood pressure was 110/75 and there were no evidences of arterial degeneration. The urine was not abnormal. The Wasserman test was negative. The cerebro-spinal fluid was under pressure, had 30 cells, chiefly lymphocytes and gave a normal glucose reaction. She regained consciousness about the seventh day when it was noted that she had a motor aphasia and paralysis of the right arm and leg. These cleared up rapidly and at the end of 10 days she talked well and used her

limbs. At the end of a month she was apparently well, except that she had a typical swinging hemiplegic gait, with exaggerated tendon reflexes on the right side."

PROGRESSIVE INVOLVEMENT OF THE PYRAMIDAL SYSTEM

The following case shows the tendency of the disease to progress and seems to be an instance of a very rare type of residua.

"Mr. C. L. M., a mechanic of 55, was treated by one of us during a severe attack of encephalitis which commenced on Nov. 22, 1919 and which lasted about six weeks. The chief features at this time were headache, diplopia, delirium. and stupor. After the acute attack, he still complained of headache and depression. He consulted Dr. Sheldon of the Mayo Clinic, who considered his condition due to encephalitis, but reported the neurological examination negative except for a slight inco-ordination of the left hand and a coarse tremor of the tongue and head. During the summer of 1920, his leg and arm muscles gradually became spastic, the deep reflexes increased and the plantar responses became extensor. There was no tremor except of the head. This condition gradually became worse until he was confined to bed with a spastic diplegia and became unable to feed himself. In the summer of 1921, his speech became indistinct, and after speaking a few words would be entirely lost. He drooled saliva and had difficulty in swallowing. He complained of pains in his tongue, but no atrophy was apparent. Sensation was normal and the only atrophy was that of disuse. He became much emaciated an died in a paroxysm of dysphea in October 1922. An autopsy could not be obtained."

It would appear that both pyramidal tracts had been involved in the region of the posterior part of the lenticular nucleus, thus producing a spastic paralysis and a pseudo-bulbar paralysis.

EPILEPSY

In two instances we have observed epilepsy following encephalitis. In both, the onset was abrupt with violent headache and convulsions. In both, metabolism was well marked before the seizures were noted. The modern concept that the fit is due to a temporary withdrawal of the cortical inhibitive functions, leaving the lower motor mechanism uncontrolled, opens up an interesting field for speculation. It may be possible that pathological changes involving nerve fibres in their course from the cortex to the mid-brain may be responsible for a temporary descerebration. The case selected is of interest, not only because of the epilepsy, but also because of the obesity.

"Miss G. W. a student of 15, was seen on June 25, 1925 because of "fits." She had an illness diagnosed as influenza in March 1923. At this time she was delirious and had one convulsion, followed by myoclonic movements lasting for a week. At this time her weight was 110 pounds. During convalescence she was apathetic during the day and restless at night. In six months her weight had increased to 160 pounds. In Jan. 1924, she began to have attacks of petit mal and in May 1924 she had her first attack of grand mal. At the time of our examination, she was having eight to ten attacks of petit mal daily and averaged two attacks of grand mal each week. Her weight was then 180, the fat being chiefly on the neck trunk and thighs. She also complained of transient attacks of polyuria. The neurological examination elicited no abnormal findings."

DISTURBANCES OF SLEEP

In the acute phase of encephalitis, sleep disturbances have been prominent, our first cases having been definitely lethargic. We have seen convalescents from encephalitis who for months were excitable and restless at night and so sleepy during the daytime that they were unable to carry on their usual occupations.

Mrs. B., a housewife of 30, was seen on Aug. 7, 1926 complaining of insomnia and pains in the neck. In April 1926, she was ill for a week with what was diagnosed influenza, during which time she was febrile, had severe headache, diplopia, delirium, and insomnia. Ever since this illness, she becomes agitated in the evening, is constantly active and talkative throughout the night, and falls asleep in the early morning. On examination, she is found to have a coarse tremor, and her pupils do not react. Apart from this her physical, neurological and laboratory examinations reveal nothing of importance."

We believe that these symptoms and signs are sufficient to make a retrospective diagnosis of encephalitis.

RESPIRATORY DISORDERS

Not only may various respiratory phenomena be noted in the acute stage, but they may also be observed as after effects. A spasmodic nonproductive cough and a tendency to hiccup are not uncommon. One of our patients had for several weeks, a spasmodic tic-like contraction of the diaphragm and accessory muscles. Disorders of the rate and rhythm are frequently reported. We have seen one remarkable instance of paroysmal polypnea.

"M. B., a boy of 6, was brought by his mother to clinic on July 11, 1926 because of changes in disposition and spells of rapid breathing. In 1922, he had afebrile disturbance during which he was stuporous. During the next year, he showed some facial tics and was very restless. In 1924, he began to have attacks of polypnea, followed by brief periods of apnea. This condition has so progressed that he has them about half the time. The aggravated by excitement and activity and they are not controlled by attracting his attention. At present, an attack will last for a minute or two, at a rate of 60 to 70, followed by a period of apnea. The respirations are very shallow. Respiration is normal during sleep. No Chovstek or Trousseau signs can be elicited and there is no carpopedal spasm or other sign of tetany. He is quite unmanageable and is cruel to animals and playmates. Further examination revealed nothing of importance."

The explanation of this condition is not at all clear. It has been suggested that thalamic lesions may produce disordered respiratory rhythm. A very similar case has been reported by Barker and Sprunt except that the patient had manifest signs of tetany due to disturbance of the acid base equilibrium by excessive oxidation[3]. We have examined this patient re-

peatedly, and we are surprised that he does not show these phenomena. Smith has recently reported four cases with disturbed respiratory rhythm, one of persistent tachypnea and three of paroxsmal polypnea[4].

DIABETES INSIPIDUS

There is much evidence accumulating to show that lesions of the pituitary gland are not constant in diabetes insipidus. Aschner believes that this disease is due to disturbance of the function of the diencephalon[5]. Puncture of the tuber cinereum just posterior to the infundibulum will produce polyuria. Focal softening of this area from encephalitis could explain this syndrome.

"H. W., a laborer of 19 years, was seen in Nov. 1923, complaining of polyuria and weakness. He had an attack of encephalitis in October 1922 from which he made a good recovery except for persistent headaches. In April 1923, he manifested a gradually progressive polydipsia and polyuria. When first examined by us, he was passing 400 ounces or urine daily, with a S. G. of 1002. There were no abnormal findings noted in the fundi, visual fields, or in the radiogram of the sella turcica. Neurological examination was quite negative. Pituitrin hypodermically failed to control the output."

METABOLIC DISTURBANCES

In several instances we have observed a pathological gain in weight, but in only one case was it extreme. In addition to the obesity diabetes mellitus supervened as well as definite changes in personality.

"R. B. D. a mechanic of 27, was treated by one of us during a severe attack of lethargic encephalitis in September 1920. At that time his weight was 175, but six months later he weighed 269. A part from a little drowsiness, he felt well and was at work. In January 1922 he complained of polvuria and polydipsia and it was found that he had diabetes mellitus. He could be rendered sugar free on a diet of about 1500 calories, but he would not co-operate well and would not adhere to his diet. For his later history I am indebted to Dr. J. T. Connel. His weight increased and the glycosuria returned. He changed from a steady workman to an irresponsible one. He spent much time in gambling recklessly and the last report obtained of him dealt with his arrest in an eastern city for forgery."

Aschner, in endeavoring to separate the functions of the pituitary gland from those of the diancephalon, demonstrated that stimulation of the diencephalon, chiefly in the hypothalamic area, could produce polyuria, glycosuria and dysplasia adiposo-genitalis. He believes that there is a sympathetic nerve connection between the mid brain, pancreas, and liver.

PROGNOSIS

About 50 per cent of all cases of epidemic encephalitis will have residua. Years of observation will be necessary to appreciate the course and seriousness of the after effects. The outlook would not seem to be hopeful for periods of improvement may be followed by exacerbations of the disease. Our impression is that Parkinsonian cases remain stationary or get worse, while myoclonic forms tend to improve.

TREATMENT

Treatment is discouraging and no reliable specific therapeutic measures have been established. I have seen no improvement after the use of various arsenicals. In the management of the Parkinsonian syndrome, scopolamine hydrobromide, gr. 1/150 increases to gr. 1/50 three times a day is of great value in controlling the tremor. This had the advantage of making the patient less self-conscious of his disability. Patients showing mental and character changes do better in institutions. Bromides and Luminal have been found beneficial in the epileptic residua. Exercises and passive movements are of some value in relieving muscle spasm.

CONCLUSIONS

1. Epidemic encephalitis has been more prevalent in Michigan than statistics would appear to show.
2. The disease has not been limited to cities but has also affected the rural population.
3. Some cases are progressive from the onset.
4. Residua may make their appearance after an interval of apparent good health.
5. In some instances, a retrospective diagnosis is all that is possible.
6. Many types of residua may be seen, depending upon the part of the central nervous system that may be affected.
7. The prognosis as regards residua is uncertain.

DISCUSSION

Dr. William H. Riley (Battle Creek): Mr. Chairman, I have enjoyed Dr. Marshall's paper very much. I think he has brought to us a very important subject. I think it is well established that encephalitis is on the increase rather than on the decrease. The sequelae that we see presented to us are some of the most important and frequent organic lesions of the nervous system. For instance, the Parkinsonian form that the doctor has spoken of is quite as frequent as is the paralysis agitans form or as frequent as tabes. It is a very frequent organic disease of the nervous system and one that is not always recognized.

This disease brings us to a very important problem, in fact since our numerous epidemics of influenza and our World War we have brought to us many new problems in the field of internal medicine and neurology and psychiatry and among these are these sequelae of encephalitis. We do not always get a history in these cases of an acute illness and for that reason the diagnosis becomes more difficult. I have seen quite a few cases where you get no symptoms of fever, no symptoms of any palsy, no symptoms of effulgy or somnolence, where the disease develops without acute symptoms. Because of that the diagnosis is more difficult. Right here I would like to emphasize

the importance of the history when you can get a regular history in the diagnosis of these sequelae. The history often helps us out very much; sometimes it does not.

The most important sequela, I think, at least in my experience, of encephalitis is the Parkinsonian syndrome, and it is well for us to keep in mind that this comes very often, perhaps most frequently in young subjects, in early adult life, while the paralysis agitans, as you all know, usually comes later in life. That may help us some in our diagnoses.

Then the history, as I have already stated, of the development of the Parkinsonian form of encephalitis is quite different than the history of the ordinary paralysis agitans. It develops more rapidly as a rule.

Another point that has impressed me very much is the interval between the acute symptoms and the appearance of the symptoms of Parkinsonian syndrome. Very often it is weeks or months. I have seen cases develop three years later, cases of the Parkinsonian syndrome develop three years after the acute symptoms. Right here I would like to emphasize the fact that these cases usually give a history of having had influenza. Whether it is influenza or the acute stage of encephalitis it is not always easy to say. But in nearly all cases you will get a history of influenza and then a period of weeks or months or a year or two or three years before the sequelae appear. So very often the patient and sometimes the physician doesn't connect those two together.

Dr. Marshall has spoken of the pathological changes in the basal ganglia and brain stem. Now right in this connection while I am speaking of this interval, I wish to say my idea is that it is not an cessation of the disease in this interval, but rather a remission, that is, the disease is progressive right along but there is a period, sometimes a long period of remission between the acute symptoms and the sequelae. But I really think that the disease is there all the time but progressing very mildly over that period.

Dr. Marshall has spoken of the difference in the tremor in the Parkinsonian form. My experience is that the tremor in the encephalitis cases is usually more an intentional tremor, while in the other forms it is more a passive tremor. There are a great many other forms of this diseaes. I saw one lady who gained 100 pounds in weight in six months. Another case, a young girl, gained 50 pounds in three months.

Chairman Sladen: I think some one should praise Dr. Marshall for this paper more than this silent praise that he is being given. It is a splendid thing, it seems to me, for us as internists not to be gun-shy of neurology, Dr. Riley is a neurologist; Dr. Marshall is an internist. I believe we should also keep our finger on neurology. I think that has been one useful thing in syphilis syndromes that we are constantly drawn into neurological problems. There is one tendency in it, that is with the prevalence of post-encephalitis syndromes, anything that is bizarre is very likely to be diagnosed as post encephalitis syndrome.

Dr. Riley touched on a question I wanted to ask, that is as to the chronicity of the condition, whether or not he felt cases dealing with constantly chronic progressive conditions or cases with remissions, as Dr. Riley stated, were really sequelae and the infections over with.

Does any one else wish to discuss this paper?

Dr. W. H. Marshall: I believe that some cases are progressive from the onset. I believe that other cases have remissions, and later may have exacerbation. I think it will take many years of observation before we will say the last word on what is to happen to these patients.

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A COMPARATIVE STUDY OF PREGNANCY AND LABOR IN PRIMIPARAE IN RELATION TO AGE*

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The following study is based upon 500 consecutive primiparae admitted to and delivered in the obstetrical division of the Department of Obstetrics and Gynecology of the University Hospital.

AGE

The cases have been divided into two groups, according to age. The first group includes patients of 16 years and under; the second group those over 16 years. In the first group there were 103; in the second 397. The average age of all patients was 19.9 years. The oldest patient was 42; the youngest 13. There were two patients of 13, seven of 14, and seventeen of 15 years of age.

PELVIS

All pelves were carefully measured, either on admission or where the patient entered the hospital in labor, sometime before discharge.

Table No. I—Pelves

	Group 1		Group 2	
	Total	Per Cent	Total	Per Cent
Funnel	8	7.4	34	8.5
Flat	3	2.9	10	2.6
Gen. cont.	3	2.9	12	3

There were in all 42 cases (8.4 per cent) where the pelvis was considered of the funnel type. A biischial diameter of 7.5 was considered the low limit of normal. This type of pelvis was found to occur slightly more than 1 per cent more frequently in the second group and was by far the most common type of pelvic contraction.

There was a total of 13 cases (2.6 per cent) where the pelvis was of the simple flat variety. The condition was present slightly more frequently in the first group, but the difference can be considered as negligible.

The total number of cases generally contracted pelves was 15 (3 per cent). The percentage of these cases corresponded very closely in the two groups.

* From the Department of Obstetrics and Gynecology, University of Michigan, Ann Arbor, Michigan.

Table No. II—Complications of Pregnancy

	Group 1 Total	Group 1 Per Cent	Group 2 Total	Group 2 Per Cent
Preeclamptic Toxemia	7	6.8	12	3
Nephritic Toxemia	0	0	5	1.3
Eclampsia	1	1.0	5	1.3
Gonorrhea	2	2.0	25	6.3
Syphilis	6	5.8	35	9.0

Preeclamptic toxemia was present more than twice as often in the younger group. Not one case of nephritic toxemia was found in Group 1, but it occurred in 1.3 per cent of the cases in Group 2. Eclampsia was found to be present slightly more often in the second group. Gonorrhea was more than three times as frequent a complication of pregnancy in the second group as in the first, while syphilis was present one and a half times more often.

Table III—Position

	Group 1 Percentage	Group 2 Percentage
Lest-sided	61	62.5
Right-sided	36	34
Breech	3	3.5

Positions were divided into left-sided, right-sided and breech. The positions were found to be practically identical in the two groups. There was but one face posteriorly and necessitated craniotomy after the death of the fetus in order to bring about delivery.

Table IV—Labor

	Group 1 Total	Group 1 Per Cent	Group 2 Total	Group 2 Per Cent
First degree laceration	25	24.2	50	12.6
Second degree laceration	7	6.8	65	16.5
Third degree laceration	0	0	3	.75
Episiotomy	13	12.6	50	12.6
Low Forceps	6	5.8	25	6.3
Mid Forceps	0	0	5	1.3
Extraction	2	2	8	2
Version	0	0	1	.3
Cesarean	0	0	6	1.5

In the study of labor and its complications it is seen that first degree lacerations occurred twice as frequently in the younger group, while second degree lacerations were nearly three times as frequent in the older patients, the total percentage of lacerations being nearly equal in the two groups. Third degree lacerations did not occur at all in Group 1, while there were three in the second group. In two of these there was no contraction of the pelvis. Repair of the sphincter ani and perineum was done immediately after labor was completed and all three healed nicely. Delivery by low forceps was necessary .5 per cent more often in Group 2. Medium forceps delivery was not required in the first group and was done on 1.3 per cent of the second. Extraction in breech cases was performed in 2 per cent of each group. Only one version was indicated and this fell in the second group. Six Caesarean sections were done, all cases being in the older group. Two of these operations were done because of the outlet, the transverse diameter being six centimeters in each case with the baby's size estimated as being normal or slightly larger.

DURATION OF LABOR

The duration of labor was found to be less than is quoted in most text books, the usual length of labor in primiparae being regarded as about eighteen hours. In the first group 11.6 hours was found to be the average length of labor and 13.9 hours in the second. The younger patients required 2.3 hours less for completion of labor. Over 85 per cent of the cases were patients in the Maternity Cottage before labor set in and therefore these figures can be considered as accurate as is possible.

Table V—Child

	Group 1 Total	Group 1 Per Cent	Group 2 Total	Group 2 Per Cent
Syphilis	5	4.9	25	6.3
Cephalhematoma	2	1.9	3	1
Stillbirth	2	1.9	10	2.5

As would be expected from the number of cases of maternal syphilis, a larger proportion of children in the second group were treated. Most of these cases had no definite symptoms or findings of the disease. Cephalhematomata were seen twice as frequently in Group 1 as in Group 2, but the number in both groups was very small. Stillbirths occurred .6 per cent more frequently in Group 2.

MORBIDITY

Morbidity is determined by a fever of 100 degrees or more on two successive days during the puerperium. In the first group there were 10 cases (9.0 per cent) of morbidity, while it occurred 40 times (10 per cent) in the second.

MORTALITY

There were three maternal deaths in the series (.6 per cent). In the first group there was one death from eclampsia, while in the second, one died of eclampsia and one of sepsis.

CONCLUSIONS

(1) Normal and contracted pelves were found to correspond fairly closely in the two groups. The remarkable feature of the study of these pelves was that not one case of rhachitic type of flat pelvis was discovered. Funnel pelvis is by far the most common type of contraction in this section of the country.

(2) Preeclamptic toxemia was present more than twice as often and nephritic toxemia not at all in the younger primiparae. This seems to demonstrate that the whole organism in the younger women is less fitted to withstand the extra strain of pregnancy. It is rather difficult to explain the absence of nephritic toxemia in this group.

(3) The more frequent occurrence of venereal diseases among the older group can be explained on the basis of exposure. Many

of the younger primiparae give a history of pregnancy after one or very few exposures.

(4) Age does not seem to have any appreciable effect upon the position of the fetus in utero.

(5) The total number of lacerations of the perineum was the same. However, the deeper type of tears were much more frequent in the older group, while the tissues are more elastic in the younger women.

(6) The duration of labor was shorter in the younger patients by more than two hours and shorter in the whole series than is usually believed.

(7) The morbidity rate was the same in both groups.

(8) The death rate was practically the same in the two groups.

(9) Youth has no appreciable effect upon pregnancy and its sequalae, except that it makes the outcome a little less strenuous.

THE USE OF A MIXED VACCINE IN THE TREATMENT OF PERTUSSIS

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It is evident that the use of vaccine in the treatment of whooping cough has fallen into disrepute during the past few years. Many practitioners refuse to use it claiming that it is of little or no value, and some of the standard textbooks on Pediatrics state that it is of value only as a prophylactic measure. Friedelander in Abt's Pediatrics states that the vaccine should be freshly prepared to be of value as a therapeutic agent and it is difficult, if not impossible, for a man in private practice to secure a fresh preparation for each case when needed.

During the past spring and summer there has been a widespread epidemic in Battle Creek and many patients presented themselves at the Battle Creek Sanitarium Dispensary for treatment and for prophylactic injection. At first an uncombined stock vaccine containing 4,000 million Bordet and Gengou bacilli per c.c. was used. This vaccine gave good results as a prophylactic, but was of doubtful value as a therapeutic agent. A combined vaccine containing 4,000 million Bordet and Gengou bacilli; 500 million staphylococcus aureaus; 100 million streptococci, hemolytic and non-hemolytic; 200 million pneumococci; and 160 million Pfeifier's bacilli was then tried with more striking results as will be shown.

The cases herein cited are only those in which a definite diagnosis of pertussis was made.

It was surprising to find that the leucocyte count was not of diagnostic value. This was contrary to teaching and previous experience, but the conclusion was forced upon us by several unfortunate experiences. Four patients, early in the epidemic, came complaining of severe cough, which was worse at night, and in whom there were no signs of bronchitis. There were no typical paroxysms as yet. The leucocyte count was between 8,000 and 11,000 in these cases. Because of positive D'Espine's signs the parents were told that the cough was due to a tracheo-bronchical adenitis and not whooping cough. The patients were allowed to run at large and infect other children until the typical paroxysms developed, which they did in each case. Needless to say these patients were taken to other physicians "who knew whooping cough when they saw it." Several subsequent cases in which there was no doubt as to the diagnosis did not show an increase in their leucocyte counts, so it was discarded as valuables in establishing a diagnosis. Not enough blood work was done to allow us to draw very definite conclusions. Perhaps it was a peculiarity of this epidemic.

Patients with typical paroxysms, and patients who had (1) a severe cough, which was worse at night, (2) absence of rales, or other signs of acute bronchitis, and (3) no fever were considered cases of pertussis. Residence in Battle Creek was considered sufficient history of exposure.

Cases	Age	Stage	Number of Injections	Course and Duration
1 Bobby N.	4 Y	Catarrhal	3	No paroxysms developed. Coughed a little at night for one week.
2 Carlene N.	6 Y	Paroxysm	3	Paroxysms stopped. Duration of cough two weeks.
3 Baby N.	10 M	Early Catarrh	3	Cough stopped after second injection.
4 Ralph C.	2½Y	Early Paroxysm	3	Paroxysms stopped. Coughed at night a little for three weeks.
5 Harry R.	5 Y	Catarrh	3	No paroxysms developed. Coughed two weeks.
6 Charles S.	1½Y	Paroxysm	5	Paroxysms diminished in number and severity. Coughed three weeks.
7 Ivan S.	6 Y	Paroxysm	3	Paroxysms stopped.
8 William S.	3 Y	Catarrh	3	Cough stopped in one week. No paroxysms.
9 Donald S.	8 M	Catarrh late	3	No paroxysms. Coughed two weeks.
10 Eldon S.	3 Y	Paroxysms severe and vomiting	2	Vomiting stopped. Paroxysms diminished in severity.
11 Fred H.	10 M	Late Catarrh	3	Mild paroxysms developed—duration two weeks.

Cases		Age		Stage	Number of Injections	Course and Duration
12	Thomas B.	8	Y	Catarrh	5	(White blood count 8,600). No paroxysms developed. Coughed two weeks.
13	Clifford B.	2	Y	Paroxysms and Vomiting	5	Vomiting stopped after third injection. Duration of cough—two weeks.
14	Catherine C.	6	Y	Paroxysms severe and Vomiting	5	(Blood count 10,800). Vomiting stopped after third injection. No cough after fifth.
15	Don C.	1	Y	Paroxysms severe	1	No effect. Refused further treatment. Developed pneumonia.
16	Florence E.	10	M	Catarrh	2	Had a paroxysmal stage—course six weeks. No appreciable effect from vaccine.
17	Olive F.	7	Y	Catarrh	4	No paroxysms developed. Cough stopped after 4th injection.
18	Donald F.	7	Y	Paroxysms	5	Paroxysms stopped after third injection. Cough stopped after 5th.
19	Cecil N.	6	Y	Paroxysm severe	4	Little if any improvement. Reaction.
20	Robert M.	5	Y	Paroxysm early	4	Paroxysms diminished in number and severity. Duration three weeks.
21	Alice M.	10	M	Catarrh	3	Developed mild paroxysms. Duration three weeks.
22	Chandler L.	5	Y	Catarrh	3	No paroxysms. Coughed at night for two weeks.
23	Howard L.	4	Y	Paroxysms	2	(White blood count 8,100). Did not return for subsequent injections. No report.
24	Billy H.	4	Y	Catarrhal late	2	Cough stopped.
25	Frank H.	20	M	Catarrh	3	Cough stopped.
26	Linner H.	20	M	Catarrh	5	No paroxysms. Coughed a little for two weeks.
27	Frances A.	2	Y	Catarrh	3	No improvement. Reaction.
28	Ladell N.	8	Y	Paroxysm	4	Paroxysms stopped. Coughed 4 weeks.
29	Elaine N.	10	M	Catarrh	4	Cough stopped 1 week. No paroxysms.
30	Bonnie C.	4	M	Catarrh	4	No paroxysms developed. Coughed three weeks.
32	Marie L.	4	Y	Paroxysms severe and bronchial asthma	4	Paroxysms and asthma stopped after two injections. Cough stopped after four.
31	Roy L. Jr.	6	Y	Mild Paroxysms	3	Cough stopped after third injection.
33	Baby L.	8	M	Catarrh severe	4	No paroxysms developed. Coughed two weeks.
34	Ann L.	3	Y	Mild Paroxysms	3	Cough stopped.
35	Ned H.	4	Y	Paroxysms moderate	4	Cough stopped.
36	Rodney H.	1	Y	Paroxysms severe	4	Paroxysms stopped after 3 injections. Coughed 2 weeks.

The dosage used in cases over one year of age was .25 c.c. for the initial injection, increasing this by .2 c.c. for each succeeding injection. In cases under one year .2 c.c. was given at the start and increased by .15 c.c. Injections were given 48 hours apart.

As a rule infants require a greater number of injections, due probably to the fact that the dosages are smaller and that it takes a greater number to reach a dose of effective size.

The average number of injections in this series was 3.4. It will be seen that the minimum number of injections to be effective is 3. In several cases this was not sufficient so the treatment was continued until results were obtained.

There was considerable variation in the individual reactions to the vaccine, some patients responding after the second and occasionally after the first dose, and others showing little improvement until after the third or fourth.

In this series there were only two patients who exhibited any reaction and that consisted of moderate redness and swelling at the site of injection with tenderness over the upper arm. These cases were Nos. 19 and 27. The injections were given four times in the former and three in the latter, but the dosage could not be increased so that little or no results were obtained.

In some cases the mothers were satisfied to have the vomiting and severe paroxysms alleviated and did not bring the children back for a sufficient number of injections to give the best results.

The results in the patients that were vomiting were the most striking. Case No. 14 is an excellent example. This patient was brought to the clinic when her cough first began but because of the low leucocyte count treatment was not started until the paroxysmal stage was well started and the diagnosis definitely established. This stage was unusually severe with vomiting after practically every meal. Not only did the vaccine stop the vomiting and paroxysms, but after the 5th injection there was no coughing.

Cases No. 31, 32, 33 and 43 were striking. They were all in the same family and when they were all in one room in the house, they created quite a symphony of coughs and whoops. Roy Junior had a typical bronchial asthmatic attack accompanying his whooping cough. At the time of the second injection there was noticeable slowing of the tempo and after the third injection there was practically no coughing heard in the house. Roy Junior's asthma was entirely relieved by the second injection.

Two patients (not included in this series) who had had whooping cough in November,

came into the ward with pneumonia in January and developed the typical paroxysms during this illness. They were treated with the vaccine with little, if any, success.

In only one case treated with vaccine was there any complication of the disease. This was No. 15, Don C., who had only one injection and who developed broncho-pneumonia, from which he recovered. The epidemic was not unaccompanied by complications, as we saw several cases of broncho-pneumonia in patients who had not had treatment for their pertussis.

A cough sedative was used, usually small doses of codeine, during the initial period of treatment when the dosage was still too low to be effective.

We had some difficulty in making the parents continue to keep their children quarantined for the required period, as they felt that they should be released when the cough stopped. This was the most disagreeable phase of the treatment.

CONCLUSIONS

1. Thirty-six cases of pertussis treated with a combined commercial vaccine are reported with improvement in thirty-three.
2. The average duration of the disease after vaccine therapy was 2.1 weeks.
3. The majority of cases require a minimum of three injections for appreciable effect.
4. There were no complications in thirty-five cases which received effective treatment.
5. There were only two patients who had reactions to the injections. These were purely local and not of a serious nature.

DISCUSSION

Dr. David M. Cowie (Ann Arbor): I am particularly interested in the blood count. How many of those cases did you do blood counts on, Dr. Russell?

Dr. Edwin P. Russell (Battle Creek): Half a dozen.

Dr. Cowie: Did you make differentials?

Dr. Russell: Yes, they were practically normal.

Dr. Cowies: The chief point I think is your differentia count, the disproportion of leucocytes and polymorphonuclear. Very frequently in pronounced whooping cough we find leucocytes may not be higher than 11,000 or 12,000, and sometimes in the catarrhal stage in the early part of the disease the leucocyte count is not more than 6,000 or 8,000, but it will be a reversal o fthe leucocytic element, the mononuclears predominating.

Dr. Russell: I expected to hear you say that the results are due to foreign protein.

Dr. Cowie: I didn't want to ride a new horse too long.

Dr. Bertha Loveland Selmon (Battle Creek): I would like to ask if the members have had ether injections in these cases. There were a few cases reported in the American Medical Association Journal which were successful. In your experience what has been the effect of ether? I would like to know just how young we can start in on those injections.

Dr. R. M. Kempton (Saginaw): What has been the effect of the quartz light in these cases?

Dr. David M. Cowie (Ann Arbor): I might say that I was very much interested in the treatment from the standpoint of foreign protein. Because I have talked so much about foreign protein, I thought I would leave it to the rest of you to discuss.

I feel quite sure that many of these cures might possibly be brought about by the injection of cholera bacilli or dead typhoid bacilli. We have not a large series like Dr. Russell has, but we have made some observations where we felt the foreign protein itself was responsible for the beneficial results obtained from the injection of the vaccine.

We are finding now in hay fever that foreign protein is giving us results in the active stage of the disease. That makes me feel all the more sure that a good deal of the beneficial results obtained in the treatment of pertussis by the use of vaccine is probably due to the foreign protein itself and not to any specificity of the organism.

Dr. Edwin P. Russell (Battle Creek): This preparation that I used was put out by Parke, Davis & Co. and is called "Pertussis Vaccine Combined." It is P. D. Bio 620 that I use. They have two preparations and this is called the combined.

I have had no experience with ether injections. I saw the article recently but I have had no cases since I saw that article, so I have had no opportunity to try it. I did try X-ray in some cases with very little success.

I feel that a child of any age can receive this. I think the youngest child I have given it to was six weeks of age. Infants seem to have less reaction to the vaccine than older children. They apparently do not even have tenderness at the site of injection for any time afterward. Of course I keep the dose down perhaps smaller than is necessary in small infants. I didn't want to get any reactions in infants because the mothers were very fearful about injecting something into a tiny baby and I had to be doubly cautious with them.

I have not tried the effect of quartz light on these patients. Our light was used with children who needed the treatment for other things, and we did not feel we should try to get these children who had pertussis in there at the same time. Our space was rather limited. In order to handle the infections, the contagious phase of the disease, we had to do away with some work that we would like to have tried.

I rarely had a patient with fever. I think the average temperature might have been 100 in the early stages and perhaps 101, never more than 101 rectally. As a rule there was a very slight elevation of temperature. I believe that an acute rise of temperature means some complication of pertussis.

PSYCHOSES ASSOCIATED WITH GOITRE

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The susceptibility of the nervous system to the toxemia of goitre is well known. Although the usual manifestation is stated as "nervousness," yet a considerable number of cases become much more severely affected; so much so, in fact, that they assume a strong resemblance to, or actually are, psychoses.

Crotti describes the nervous characteristics

of Basedow's disease as emotionality, irritability, restlessness and instability, and the more severe cerebral disturbances as obsessions, impulsions, hallucinations, and mental confusion. He rather favors the idea that insanity and Graves disease are only associated conditions. McGarrison, on the other hand, states definitely that actual mania, melancholia, or dementia may occur as a result of goitre.

In our own series, we have encountered these more violent mental symptoms in about 2 per cent of all cases, and these are so well marked that they, in our judgment, should be called definite psychoses.

Case No. 1, Mr. J. O'B.—Single man, aged 27, had been committed to two or three asylums for the insane. The diagnosis was not obtained from either of these institutions, but when he was admitted for operation in March, 1924 he was suffering from delusions, especially manifested by fear in the night. He was obsessed by the desire to conduct a "hold-up" which, however he never did. At times he would be so extremely nervous and excitable that for several hours at a time he could not work. Clinically he had a moderate sized adenomatous goitre, with a pulse of 80 —metabolism not taken. The goitre had been present for several years. Subtotal thyroidectomy was done in March, 1924. A recent report from his physician states that the mental symptoms have disappeared, and that the patient states that he never felt so well in his life. The county agent, who had largely kept him before states that the patient is no longer one of his charges, since he now supports himself as a janitor. At operation the gross findings in this case was a large hyperplastic goitre, containing adenomata in both lobes. No microscopic study was made.

Case No. 2, Mrs. J. H.—Married woman, aged 36, "nervous breakdown" occuring before marriage, and a definite hyperthyroidism with each of three pregnancies, each attack being worse than the former. During the last exacerbation the patient developed definite mental symptoms, the chief one of which was that her husband was devoting himself to other women. She would listen in on his telephone, spend her time coming unexpectedly into his office, and even attacked an entirely innocent party, striking her and roughly accusing her. Her obsession took the form of endless accusations and tearful complaints. Thyroidectomy was done when she was three months pregnant, with a complete and prompt subsidence of the mental as well as the other goitre symptoms.

The pregnancy continued and terminated normally, but the mental and other symptoms subsided within a month after operation. A multiple adenomatous goitre was found at operation. There is no history of mental disease in the family. Goitre for years, exaggerated by pregnancy, mental symptoms developing and cured by thyroidectomy in the presence of pregnancy, argue strongly that goitre was the actual causal factor.

Case No. 3, Mr. H. C.—Married man of 34, no history of insanity in his family. Had a progressive hyperthyroidism over a period of several months. Metabolism plus 65 to plus 79. Mental symptoms came on. He had a very strong delusion that members of the family were talking about him, plotting him harm, and to protect himself he obtained a revolver which he kept under his pillow until discovered and removed. He sprang from the window of his room one day in order to escape an imaginery foe. He also became violent. Ordinarily an amiable and devoted husband, he one day in a fit of anger jerked the telephone loose from its moorings and threw it at his wife. His family spoke of him as being first "flighty" then "irrational" and then "insane" but re-iterated their statement that he "never acted this way before this goitre came on." While this patient was a desperately sick man, he did not assume what could be called a terminal delirium. Double ligation preceding a subtotal thyroidectomy was followed by a complete recovery in all respects. No other cause than the goitre could be found.

Case No. 4, Mrs. L. M.—Married woman aged 45, ordinarily accustomed to hard work, had for two or three months been losing strength and becoming nervous. Several weeks before admission to the hospital she became greatly depressed mentally, and cried almost continuously during that period. With the crying she almost entirely refused food. She was constantly watched by the family, who were certain she would have to be committed to a hospital for the insane. Examination revealed a walnut sized adenoma in the thyroid, the gland being apparently otherwise normal, yet the metabolism rate was plus 69. Subtotal thyroidectomy was followed in two or three months by complete recovery from mental as well as other symptoms. The pathological report quoted "Suggests a Lugolized Graves constitution thyroid, containing adenoma which suggests early malignancy."

Case No. 5, Mr. E. B.—A large robust man of 57 years, weighing over 200 pounds, and a butcher by trade. Had to quit work one year before he entered the hospital in July 1923, because of mental depression, loss of strength and sweating. He cried a great deal, whether in his home or in his shop. He could not wait on a customer without leaving to have a crying spell. He apparently cried without reason. He had had a similar attack five years before, and was completely cured by a lobectomy. Pathological report quoted "old adenomatous goitre, no parenchymatous hypertrophy."

Improvement again followed thyroidectomy but symptoms again recurred after about one year since when he has become gradually worse. A recent report is that he was discharged because of general inefficiency and indifference. It was then learned that his mother spent the last 20 years of her life in a rocking chair on account of distinctly disturbed mentality.

Case No. 6, Mrs. L. C.—Married woman, five children, aged 37, no history of insanity or of goitre in her family. She developed the usual symptoms of hyperthyroidism about a year and a half before admission to the hospital. In addition she developed a marked mental confusion a few weeks before admission during which time she did not recognize members of her own family. Extremely restless and disturbed after admittance, would not eat and was very wakeful. Mouth became very sore. Her pulse was only 110 to 120, and she was otherwise not sick enough for terminal delirium. Thyroidectomy was followed by a complete subsidence of the above symptoms eight days post operative, with a complete physical recovery in three or four weeks. Hyperplastic gland.

Although this patient was in the hospital for three weeks, when discharged she said she did not remember being brought there, did not remember being operated, also said she hoped she might be able to see her surgeon some day, as she would like to know what he looked like. (He left town one week after the operation, but had previously been in daily attendance).

Case No. 7, Mrs. Ida H.—Age 49, married, three children, three to six months of goitre symptoms, with marked emaciation, and pulse of 140. Maniacal symptoms developed, she was noisy constantly repeated statements, had to be restrained in order to keep her in

bed. Nothing could be accomplished in the way of attention except by force. She would not eat or drink, and her mouth became sore. She failed to recognize her surroundings, and on one occasion attempted to escape in a short nightgown, and stockings, these latter being tied on in many places. With a suitcase in her hand, she thus started down the corridor crying out that she must "go home." Her resistiveness was marked, and force only had any effect on her. Thyroidectomy was followed by a marked mental and physical improvement while in hospital, in all four weeks, with a complete clearing up of all symptoms within two months of the time of discharge. There was no history of insanity in the family, although the patient was illiterate. The gland grossly was of the hyperlastic type, as in hyperthyroidism. No microscopic study was made.

This type of psychosis is called by Crotti an "acute delirium" yet if the same symptoms were dissociated from a goitre they would undoubtedly be called a definite psychosis of the manic depressive type. The writer feels that these are as much definite entities as is the so-called "puerperal insanity" and as definitely related as to cause, and that goitre must be considered a cause of mental derangement.

Case No. 8, Mrs. B.—Aged 43, married 21 years, six children. Had been suffering for three or four years with symptoms later diagnosed by competent neurologists as Dementia Praecox. Had a small goitre since puberty. Pulse of 80 metabolism plus 2. Under pressure from the family a subtotal thyroidectomy was done, February, 1925. Pathological report: "Old colloid goitre, with calcification of much of the colloid, increase of stroma, no epithelial hypertrophy or lymphoid hyperplasia. No evidence of Graves "Constitution." Recovered from the operation but did not improve mentally. In May, 1925, mental condition was less satisfactory—"patient very negatavistic, and required tube feeding." Was however, discharged from the State hospital in June of the same year as "improved." Report September 1926 stated that she died one month before, cause not known.

This patient is of interest in connection with the report of A. B. Kanavel, who has shown encouraging results in dementia praecox in those operated early in the disease but no improvement in those operated later. Most of his cases were colloid goitres.

Winslow also forms practically the same conclusions as given by Kanavel.

It may be noted that cases 1, 2, 3, 4, 6 and 7 were grossly or microscopically definitely pathological and the goitre symptoms preceded the psychoses. These cases were all cured. In case 5, the gland was adenomatous but had no parenchymatous hypertrophy and the pulse was only 72. Case 8 showed a simple colloid nontoxic goitre. In both cases 5 and 8, we had therefore non-toxic goitres, and also the mental symptoms were of long standing and not preceded by goitre symptoms.

It is the writer's belief that when thyroidectomy is done for mental symptoms, it should be at least a major portion of the gland, usually subtotal.

DISCUSSION

Dr. Nathaniel Gates (Detroit, Mich.): Dr. Boys has brought a very interesting and important communication before the surgical section because the topic has not been strictly a surgical one. That the psychologic attitude of people preceding an operation is attracting a great deal of attention in the profession is evident from the important communication addressed to the American Surgical association this year by its president, Dr. Gibbon, which is entitled, "The Psychology of the Operative Case."

It is becoming increasingly evident that a great many patients go through the clinical, surgical details of an operation but very often their emotional mechanism does not survive the element of trauma inflicted by the operation which precipitates the acute psychotic state which is impending.

My interest is somewhat attracted to this subject because at the present time I am observing two cases of postoperative psychosis following exophthalmic goitre operations, one performed by Dr. Crile in Cleveland and another by experienced and outstanding surgeon of Detroit.

Dr. .Boys' communication is of especial interest, I think, because he discusses the pre-operative psychosis which has been remedied by the surgical procedure adopted.

So far as the relationship of a thyroidectomy in dementia praecox is concerned, in about 1905 Halstead and Berkley of Baltimore believed from a study of praecox cases there was an element of thyroid in those cases. Dr. Halstead at that time did a number of partial thyroidectomies with these cases with no remarkable results and the operation was dropped and it was decided it had no specific relationship to the dementia praecox except there was adolescent increase in the thyroid incident to the aged period of the subject.

It was my good fortune to have a young man come under my care in 1906. He had a type of dementia praecox which I took to Baltimore and a partial resection of the gland in hand was done by Dr. Halstead, with no result as far as the patient's condition was concerned, and death resulted later. Dr. Halstead's opinion at that time was subsequently expressed to me that that operation had no place in the treatment of dementia praecox. From my own study of the literature and some observation of the cases, I don't believe that the dementia praecox can be cured by any surgical operation.

Cases of psychosis following thyrotoxic states are best expressed in terms of Coste and Mitchell who discussed the subject some years ago in Philadelphia and concluded that the postoperative psychosis in surgery was nothing more than the explosion of the motive gun. That was the expression they used.

We have cases we are observing at the present time. Dr. Barrett has a case of that type, a young woman who was operated in June for a progressive goitre. Another case is a young man entered by Dr. Crile. The postoperative result in both was indentical, a splendid surgical result, but a mental dissolution of the patient. Both of these cases are suffering from acute mental disturbances which is becoming a chronic type, and in the judgment of Dr. Barrett is a stupor of a toxic type. There is an element of terror expressed by the patient in all of her spoken expression, attempting to escape from death and terror, the actual state that is so well defined in a study of a severe case of exophthalmic goitre preceding operation.

I think the most important thing today preceding an operation in an intensely toxic thyroid is the very careful study of the patient from the standpoint of the emotion expressed by the individual; the element of heredity must not be lost. In other words, a most exacting and careful history must be taken and every possible study to bring the patient's mental attitude to an operation must be made. If it cannot be done by

the surgeon, he should have a trained physician or a sane psychiatrist. If I had more time I could dwell on the question of modern psychiatric literature, which is attempting to read into many of these cases so-called fradulent complex and speaks of them as dis-association of the mental condition of the patient in which the element enters into it and they term it a suppression of neurosis. As a matter of fact, all of these acute manifestations in early adolescent life, if your mind is running in that direction, can almost be reduced to a basis of a fradulent type. That is the reason I use the word "sane." I am speaking of a man, of which Dr. Barrett is the finest kind of an example, who approaches all his cases with an open mind and does not treat his cases with a particular differentiation of mental process, which some mental writer has formulated.

Dr. H. E. Randall (Flint, Mich.): I just want to add one sentence. At Lapeer, the state home for feeble minded, called the Michigan Home and Training School, in the 20 years that I have been going over there we have had only one case of toxic goitre.

Dr. C. E. Boys: One of these cases, the most severe one, was diagnosed by Dr. W. A. Stone, now deceased, formerly of the State Hospital at Kalamazoo. I didn't think the patient was a goitre case and thought it was just a case for the asylum, but he said it was not and I should remove the thyroid. He took occasion to remark at that time that as he looked back over his 25 or 30 years' experience in the State hospital, there was a very considerable percentage of cases that, perhaps in the light of what he knew then, could be explained by toxic thyroids.

I have had very little postoperative psychosis develop. In the thyroids the most marked one was a most unusual and violent case of chorea. I never saw but one chorea which developed prior to thyroidectomy. This was of short duration and the patient progressed very satisfactorily.

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A RESUME OF, AND EVALUATION OF SYMPTOMS AND SIGNS IN THE DIAGNOSIS OF TOXIC GOITRE

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GRAND RAPIDS, MICH.

The present day teaching divides toxic goitre into two main classes—namely, exophthalmic goitre (hyperplastic type) and toxic adenomas. If a toxic case cannot be placed in either class it is often called the mixed type. Although this differentiation or classification is questioned by some, it will be adhered to in this paper.

It is simple enough to recognize a full-blown case of exophthalmic goitre—in fact there is probably no disease in which one can make a snap-shot diagnosis with as high a percentage of correctness as in this condition. A glance at such a patient is sufficient. His staring, scary, blinking and protruding eyes are almost pathognomonic of the disease. His manner is restless and his speech is often so rapid that it resembles stuttering. The words fall over themselves, as it were, an expression of psycho-motor hyperactivity. All this information is obtained without a history or physical examination.

Thyroid—Upon examination there is usually (not always) an increase in the size of the thyroid and it may be irregular, as usually obtains in the adenomatous goitre. An enlarged thyroid is not necessarily toxic, but on the other hand the thyroid need not be enlarged to be toxic. There may be or may not be a thrill or bruit.

Cardio-vascular—There nearly always is tachycardia and cardio overaction. The latter symptom and sign is of greater importance than is usually given it. There usually is vasomotor instability and interesting blood pressure values obtain as a rule. The systolic pressure is usually somewhat, or may be considerably, increased, and the diastolic pressure is relatively low, and the pulse pressure high. There is often the feeling of undue body warmth. Finally in the cardio-vascular chapter of the disease, irregularities and decompensation may supervene.

Nervous system—Besides the characteristic restlessness, there usually is a fine tremor of the finger and the patient often complains of feeling trembly or shaky. Muscular weakness, not ordinary fatigue, is one of the outstanding symptoms.

Gastro-intestinal—The appetite in some cases may be poor, but as a rule it is normal or increased. There may be some increase in weight for a time owing to the greater intake of food, but ultimately there nearly always is loss of weight. Nausea, vomiting and diarrhea, if present, usually occur when the toxicity is extreme.

Metabolic rate—Toxic goitre is characterized by an increase in the basal metabolic rate, although it is not pathognomonic of it.

The fact is, few cases present a syndrome as complete as that briefly sketched above. We should aim to recognize early symptoms and signs—only a single one present, as for example, a staring eye, should lead the way to theh working out of a diagnosis of this important disease. We shoudl ever have the subject in mind when a history is obtained, and as well during the physical examination.

The layman today is already sufficiently conversant with goitres to himself interpret enlargement of the thyroid as reason for seeking medical opinion and advice. Many understand that nervousness is of thyroid origin. We physicians must at least measure up to this popular

knowledge and, of course, should be far ahead of it.

The diagnosis of goitre is difficult because not one of the symptoms or signs is pathognomonic. Any of the cardinal symptoms and signs may be present in other conditions. Moreover, they do not always come in a regular, orderly sequence. For example, gastro-intestinal symptoms which usually are late symptoms may be one of the first to appear. This is illustrated in the following case history.

A married woman, aged 51, mother of four children, fundamentally not robust, of a nervous temperament, however, has always had fair health. Two months ago she was taken with influenza that confined her to bed for two weeks. She then was up and around the third, fourth, fifth and sixth weeks without gaining strength. In fact she grew progressively weaker and returned to bed the seventh week. During this week she lost her appetite almost completely. The beginning of the eighth week the patient began to have nausea and vomiting which continued the entire week. At the end of this eighth week I first saw the patient. On examination she was found to lie quietly in bed, but there was a suggestion of a stare, and she was slightly flushed. The thyroid was one plus enlarged, without a thrill or bruit. The heart rate ranged between 110 and 120. There was definite cardiac overaction both to auscultation and palpation. There was a questionable tremor. The temperature was 99 plus.

DISCUSSION

The gastric symptoms came so rapidly that the usual nervous symptoms, so characteristic of exophthalmic goitre, had for some reason not appeared. It might be mentioned that for one so weakened as the patient was, she impressed one as being somewhat more stimulated than one would expect to see in an ordinary case of exhaustion. *She was not restless.* The suggestion of a stare was a sign to be considered, pointing possibly to goitre origin. The patient's husband stated, however, upon questioning, that he could not notice any difference in the appearance of her eyes. The heart rate was of no importance in one so weakened. However, the cardiac overaction was, in my opinion, extremely important and largely on the strength of it the tentative diagnosis of toxic goitre was made. A possible gall bladder had to be considered seriously since the stomach symptoms dominated the picture (nausea and vomiting), but cardiac overaction does not obtain in an ordinary case of exhaustion. On the contrary, the heart action and tones would tend to be weaker rather than increased.

Parenthetically I wish to emphasize the value of cardiac overaction in the diagnosis of goitre. It occurs temporarily during an ordinary physical examination of neurotic people who are excited because of examination. Cardiac overaction also occurs in anaemic patients because the heart is sending through it a larger quantity of blood in an attempt to keep up its oxygen carrying capacity to normal. Overaction caused by a thyroid toxicity is entirely different from overaction resulting from hypertension. In the latter there is a heaving action confined to the left heart. Overaction in the right heart, caused by obstruction in the pulmonary circulation also produces a heaving. The overaction in toxic goitre is slapping, not heaving, and the entire heart takes part in the overaction. The greatest impulse is usually centered at the left sternal border, in other words, the location of the center of the heart. To obtain the greatest clinical aid from this sign an intensive study of this behavior is necessary.

To return to the above case, Lugol's solution was administered rectally in large doses, both for diagnostic and therapeutic purposes. In thirty-six hours vomiting had ceased. The patient was in an outside hospital where there was not a metabolism apparatus, but one was obtained purposely for this case, and on the third day the basal metabolic rate was determined and found to be 35 plus. In three weeks the patient was operated. She made an uneventful recovery. Strange to say as the time went on the eye symptoms became more and more pronounced, until now, three months after operation, they are more definite than they have been at any time. There is a very definite stare, slight exophthalmus, and a positive lid lag, although the general condition is in every way improved. The appetite is good and there is a gradual increase in strength and weight. She is calm and relaxed. There still is some cardiac overaction, but it is definitely less.

In doubtful cases then, Lugol's solution may be administered to advantage for diagnostic purposes as obtained in this case. Likewise in the following:

A business man, aged 65, in vigorous health until first of April. Following a "heavy cold" he noticed that he tired more easily and with it was a beginning loss in weight. Both continued and progressed. In the four months to follow there was altogether a weight loss of 45 pounds. He was probably slightly more nervous than formerly, but he complained particularly of feeling shaky. Upon standing there was definite shaking of his knees. There was slight nausea on two occasions, and he was bothered considerably with gas in the bowel. At one time there was said to have been some sugar in the urine.

The physical examination showed that the patient had lost considerable weight, but there was no anaemia. He did not appear fatigued despite the loss in weight probably because of the stimulation. There was a suggestion of a stare, but no other eye signs. There was no thyroid enlargement. The pulse rate ranged between 100 and 110: blood pressure 168/70. There was slight cardiac overaction, but no apparent vasomotor instability. There was a moderate degree of arterio-sclerosis.

Four conditions seemed to present them-

selves for differential diagnosis. *First,* some hidden malignancy, most likely located in the gastro-intestinal tract, but all investigations made with this in view were essentially negative; *second,* failing health from a general breakdown was thought of, especially so since several members of his family gave a history of having a breakdown rather early in life; *third,* diabetes, since it was suggested in the history, but investigation along this line proved negative; *fourth,* toxic goitre and this possibly seemed more likely after having ruled out as far as possible the other conditions mentioned. A metabolism test was made which showed a 69 plus. These values together with the suggestion of a stare, the weight loss, and muscular weakness and shakiness of his knees, which was a rather unusual sign, the absence of anaemia, and the low diastolic pressure suggested the administration of Lugol's solution for the purpose of aiding in the diagnosis. In about three days the patient began to feel better, the shakiness disappeared, the muscular weakness improved and in ten days he was able to get up on a chair from the floor, which he could not do before, and it was noticeable to him that he felt relaxed. The metabolic rate ten days from the beginning of Lugol's administration was 35 plus. This case is in the hospital at present. We feel reasonably certain of the diagnosis and with all the circumstances considered, we plan to ligate the superior thyroid arteries within a few days rather than do a thyroidectomy.

In given cases there are still indications for ligation. This case again illustrates the value of iodine as a diagnostic agent and as well the metabolic rate determination.

The psycho-neurotic patient, the neurasthenic, cases of anxiety, neurosis and neurovascular asthenia all offer problems in the diagnosis of toxic goitre. They may present many of the symptoms and signs of toxic goitre although they are temporarily in nature, but this point must be definitely determined. Needless to say neurotic individuals may have toxic thyroids. In fact, I have regarded certain neurotic patients as potential thyroid cases. It is often necessary to see such patients on different occasions and under different circumstances in order to arrive at a definite diagnosis. Even metabolic rates may be misleading and therefore should be repeated in not so few instances in order to get its true meaning. One of the most valuable symptoms in the differentiation of a neurosis from a toxic goitre is the matter of fatigue versus weakness. The neurotic patient becomes fatigued; that is, a temporary fatigue, and it often comes on suddenly. It disappears of itself but will be hastened by lying down a short time or after taking of food. The toxic goitre case is weak (not fatigued) and it is constant.

We have operated during the last year a half dozen cases of toxic adenoma with cardio irregularity, in patients in the late sixties and early seventies, with excellent results. These patients were picked out by a very capable internist who had differentiated them from cardio-vascular conditions or possibly a cardio-reno-vascular syndrome. I believe this is a condition that deserves earnest consideration since well selected cases can be offered worth while improvement by removal of the thyroid. Well understood blood pressure values are invaluable in selecting such cases. Briefly stated, a diastolic pressure remaining at 80 or below with the systolic pressure at 150 or above, point to a thyroid influence, especially if there is an increase in the pulse rate. Diastolic readings of 100 or above in cases of high systolic pressure speak against a thyroid influence.

I wish to point out the importance of picking out thyroid factors in surgical cases of any kind, since the hazard of operating for any cause in the presence of toxic goitre is great. In this relation I have seen one death because the condition was not recognized. Such patients should be prepared for operation by means of the administration of iodine the same as one would if he were to operate a thyroid case, if such a sequence is indicated. Generally speaking, however, thyroid toxicity, if present, is usually more important and should have attention first.

IN CONCLUSION I WISH TO EMPHASIZE

1st. The importance of cardiac overaction as an almost constant sign in toxic goitre.

2nd. The value of the use of iodine as a diagnostic aid.

3rd. The diagnostic value of fatigue vs. weakness in the differential diagnosis between neurotic conditions and toxic goitre.

4th. The importance of recognizing toxic thyroid factors in surgical conditions of any kind.

5th. The aid that may be given certain heart conditions by operating upon the thyroid.

DISCUSSION

Dr. C. E. Boys. (Kalamazoo): I think as we know more and more of goitres we go into these finer details than we did formerly. Some of the most unexpected things occur. I have in mind a case that was sent in for gall-bladder operation and during the routine examination, I discovered an unusually rapid heart for gall-bladder; it was runing about 120. I could find no cardiac disease like a murmur that would explain such a rapid rate. Then I thought of the matter of goitre as a possibility. I looked at the

patient's neck and it was one of the most scaphoid, goitreless necks you ever saw. It looked like a pair of sternum mastoid muscles hung around a skeleton; there were deep depressions from every side of the neck. I put her chin up and almost by accident I observed some little bit of a thing coming up from behind the sternum which proved to be a large substernal thyroid and absolutely answered the whole question; so thus in an almost unexpected manner we may find answers to the question of diagnosis.

It is amazing even yet how many of these goitre patients are treated for heart disease for weeks and weeks, despite all that everybody seems to know about the relation of tachycardia to goitre.

Dr. Henry J. Vandenberg: Just in that connection, I had a case come in for treatment with a definite gall-bladder history. We recognized in her that she had a goitre and advised that she have this taken care of first, which she did. She returned a year and a half later to have her gall-bladder removed. She said, "I have been having so much trouble and more and more as the time has gone on, and I have decided now the gall-bladder must be removed."

This patient again presented at this time definite signs of thyroid intoxication. She had had so much trouble with her gall-bladder that we sent her to the hospital and prepared her in the way that I suggested, for 10 days or two weeks, with iodine and operated her gall-bladder and she went through it without any trouble at all.

SECONDARY ABDOMINAL PREGNANCY WITH INTRA AND EXTRA-UTERINE PLACENTA—CASE REPORT

DON H. DUFFIE, M. D.
CENTRAL LAKE, MICH.

Mrs. D. W., white, age 34, healthy mother of two sturdy children, came in the third month of gestation, with a history suggesting ruptured ectopic pregnancy, except for apparent absence of hemorrhage. A second attack occurred about two weeks later, still her condition continued fairly good. The uterus increased normally in size during the ensuing weeks, so suspicion of ectopic pregnancy was abandoned.

Throughout the pregnancy, though not nauseated, she suffered continued and marked gastric discomfort, belching much gas, which she had never before done.

Living at some distance, she failed to come in again during the later months, till after her expected confinement date. The fetal head was then found startlingly close to the surface, in mid-line, just distal to the navel. Some unfamiliar type of transverse position being supposed to exist, a large bag was introduced into the cervix, without anything unusual being noted.

Energetic pains promptly followed, expelling the bag a few hours later, with practically full dilatation, but only trivial hemorrhage. Not until then was found what was taken to be a high central placenta previa, making the absence of hemorrhage quite puzzling.

Section being rejected, version was proceeded with, an interminable thickness of placenta (also the uterine wall, as later appeared) being torn through in order to reach the fetus.. A foot was readily brought down and traction maintained, in the supposition that hemorrhage was thereby controlled. External bleeding was checked, but the woman died (undelivered) a few minutes later from profuse concealed hemorrhage.

The uterine placenta, of annular type, rolled into a ball, had occupied the entire fundal cavity. From the cord, an isolated strand of vessels led out through a large rent in the uterine wall to an accessory placenta attached to a loop of intestinal.

Next day, aided by Dr. Rulison, of Lansing, necropsy was obtained. The uterus was of bicornate type, right cornu being represented only by its distended lateral wall, medial wall being absent. The viscera were welded by dense adhesions into a single mass, partly enclosing a nest in which the fetus had lain: amply explaining the gastric disturbances. Tags of tissue, later identified as placental by Dr. Warthin, were found on various coils of intestine, while from the secundae several strands of broken-off vessels had evidently led to these accessory lobes.

The ball of uterine placenta was nearly enclosed in membrane, leaving little villous surface, showed slight vascular connections, and was apparently almost non-functioning. The cord took origin from a plexus of vessels in the membranes, having but the slenderest connection with the uterine placenta.

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PUBLIC HEALTH ACTIVITIES

Edited By

MICHIGAN DEPARTMENT OF HEALTH

OUR ROADSIDE WATER SUPPLIES

Highway travelers in Michigan stand a better chance than they did a year ago of getting safe drinking water along the roadside. "This Water Safe for Drinking, Michigan Department of Health, 1926," has become a familiar sight along most of the trunk lines, and popular interest has apparently increased with the signs.

Systematic survey of drinking water supplies likely to be used by travelers on the highways was begun in the summer of 1925. Starting late in the season, about 1,780 miles of road on four trunk lines were covered. In all, 427 sources of drinking water were investigated,—samples tested, premises thoroughly looked over, owners instructed, and placards posted.

With an earlier start in the summer of 1926, the number of supplies investigated was almost doubled. In the 57 days devoted to this work, from July 6 to September 13, representatives of the Bureau of Engineering covered 5,479 miles of state road—an average of 100 miles of travel per day. Thirty-two trunk lines were completely covered and parts of 10 others were included in this investigation. Samples were tested from 805 sources, an average of 12 samples per day.

Of the sources tested, 76.3 per cent were found safe, and 23.7 per cent unsafe. Of the tubular wells,—wells either drilled or driven and usually with a steel or iron pipe forming the well—79.4 per cent were safe. Of the dug wells,—wells excavated by hand, with the sides walled up,—only 21.1 per cent were safe. Of springs, 52 per cent were safe.

Whenever a supply was found to be safe, the metal approval sign was posted, informing the public that that supply was regarded by the Michigan Department of Health as satisfactory for drinking purposes.

In addition to the supplies tested, there were available along the roads traveled 52 municipal supplies known to be satisfactory through previous investigations. To most of these municipalities approval signs were furnished so that they could advertise to the traveling public the safety of their water supply.

In all, more than 600 approval signs were used.

In summing up the precautions to be observed by automobile travelers in choosing their drinking water, E. D. Rich, Director of the Bureau of Engineering says:

"First, look for the metal approval sign of the Michigan Department of Health.

"Second, carry one or more thermos bottles and fill them from an approved supply.

"Third, if you are on a county road and are unable to find an approved well do not drink from a country well unless the surroundings are exceptionally favorable. If the yard is untidy, the barn, pig pen, chicken house, or privy are near the well, or if you think there is a chance for leakage into the well, look for another drinking place.

"Fourth, do not drink from a stream if you can possibly avoid it, and then only in a region which is almost entirely uninhabited.

"Fifth, do not drink from a spring unless you are in a very sparsely settled country, and not then, if you can see any possible source of contamination."

SCHICK TEST CLINICS

The Michigan Department of Health is now conducting clinics for administering the Schick test in the several counties where toxin-antitoxin was given last year in the demonstration clinics conducted by the department.

The Schick test clinics are scheduled in about the same order as the toxin-antitoxin clinics in each county. A doctor and nurse from the department administer the Schick testing material one week, and return on the same day and hour the following week to read and record the result of the test. Where the reaction from the test is found negative, indicating immunity from diphtheria, a certificate stating that fact is given the inndividual; where the reaction is positive, the person is advised to go at once to his physician for another series of three toxin-antitoxin treatments.

In these clinics the Schick test is offered, not only to all who have ever taken the toxin-antitoxin treatments, but to anyone, child or adult, who may want to know as to his susceptibility to diphtheria. About 70 per cent of those having had toxin-antitoxin are taking advantage of the tests. The number found to be immune ranges from 80 to 90 per cent, the higher per cent of immunity being among the children who have had toxin-antitoxin.

Beginning in September this year, the order

of counties scheduled for the department Schick test clinics is Baraga, Alger, Presque Isle, Montcalm, Cass, Kent, Genesee. Clinics for the Schick test were conducted in the same manner in Ionia and Washtenaw counties a year ago.

WELLS AND TYPHOID

Investigation of an outbreak of typhoid fever which occurred in Rogers City during the months of August and September has revealed a total of 20 cases and two deaths.

The infection was traced to contaminated wells. Eleven of the individuals who developed the infection were living at a boarding house and a total of 15 were probably infected by drinking water from the well at this place. Four other cases developed in a family whose well was also contaminated and was the probable source of infection.

Of those infected at the boarding house, one person went to Detroit and developed typhoid about a week later. Another person had gone to Cheboygan and a third to Alpena when the boarding house closed. Both developed typhoid fever within a few days. A contact case developed in the family of a young man who had gone to his home in Alpena. Another case developed in Lansing in a girl who had been visiting her relatives in Rogers City and among whom three cases of typhoid fever had developed.

This outbreak is a good example of the danger which a contaminated well holds, not only for the people using the well but also for the people generally over the state.

CHECKING YOUR DIPHTHERIA DIAGNOSIS

The low incidence of diphtheria during the last 18 months has apparently led to a laxness on the part of some physicians in checking their diagnoses. The laboratory has received a number of throat swabs taken just before or after the death of the patient. In view of the almost certain rise in the diphtheria case and death rates, every precaution should be observed in diagnosis.

PRENATAL PROGRAM IN EMMET COUNTY

The services of Miss Katharine Kreizenbeck, a graduate nurse, have been offered to Emmet County by the Michigan Department of Health to do prenatal work under the supervision of local physicians. Miss Kreizenbeck will finish a similar program in Newaygo County in December, and will go to Emmet County in January, 1927. The physicians of the county have been visited and have expressed their approval of the proposed program, which consists of home calls by the nurse on prenatal cases throughout pregnancy, instructing them in the hygiene of pregnancy and keeping them in close touch with their physicians. Miss Kreizenbeck will remain in the county for a period of one year.

TO THE INDIVIDUAL PRACTIONER

It is often difficult to get a measurement of service rendered by the Michigan Department of Health to the individual practitioner. Although it is recognized that the general service of the department is enormous, specific illustrations are hard to point out. The records of the Biologic Distribution Division of the Laboratory of the Michigan Department of Health contain the best specific illustration that has come to hand recently.

During the month of October 20,000 cc. of toxin-antitoxin mixture were sent in small lots to practicing physicians to use on their own patients. These small lots were from 10 to 50 doses each and bore no relation to public health campaigns which were going on in the community. In all probability this would represent close to 5000 patients that were immunized by the general practitioner during the month of October. From material sent out from the main laboratory, the city of Detroit has dispensed to physicians a great deal of toxin antitoxin, the exact quantity undetermined, but something over 30,000 doses.

The list of products distributed free by the Michigan Department of Health is Schick matrial, toxin-antitoxin, diphtheria antitoxin, typhoid vaccine, silver nitrate ampules. In the near future, Dick test material, scarlet fever streptococcic toxin for immunization, and scarlet fever antitoxin will be added to the list.

INFANT CLINICS

Infant clinics conducted by staff members of the Bureau of Child Hygiene and Public Health Nursing during October did not start until the middle of the month, which accounts for the fact that the totals are smaller than usual. The schedule follows:

		Number Examined			
Date	Place	Boys	Girls	Total	Defects
10-13-26	Tawas City	11	12	23	34
10-14-26	Alabaster	8	7	15	29
10-15-26	East Tawas	11	9	20	32
10-18-26	Whittemore	10	18	28	62
10-19-26	Hale	1	7	8	10
10-20-26	Oscoda	7	8	15	27
10-22-26	Hillman	7	4	11	30*
10-25-26	Johannesburg	8	7	15	31
10-26-26	Gaylord	3	4	7	10
10-27-26	Gaylord	9	13	22	53
10-28-26	Elmira	12	13	25	69
10-29-26	Vanderbilt	3	3	6	13
Total		90	105	195	400*

* 1 Prenatal Examination.

THE WESTERN DIVISION LABORATORY

The Western Michigan Division Laboratory of the Michigan Department of Health opened for business on Labor Day. Notice was sent to the physicians of western Michigan that the same service was available to them in Grand Rapids as at the Lansing laboratory. From the character of the inquiries made by physicians, it was quite evident that many of them had thrown the communication into the wastebasket without even glancing at its contents.

The laboratory is running and is available for any biological or bacteriological examination that the physician needs in aiding him to arrive at an accurate diagnosis. The month of September the laboratory made 1,711 examinations, in October, 4,009.

The city of Grand Rapids has provided a splendid building and adequate equipment, and the State Department of Health has installed every modern technical convenience necessary for accurate and dependable work. Physicians in the Grand Rapids area should be proud of this division.

SIXTH ANNUAL PUBLIC HEALTH CONFERENCE

Invitations to the Sixth Annual Public Health Conference to be held in Lansing, December 1, 2 and 3, 1926, under the joint auspices of the Michigan Department of Health and the Michigan Public Health Association were sent out from the Department offices November 4 to the 2,000 health officers and public health nurses throughout Michigan.

Many names of interest to physicians as well as public health workers appeared on the program. Surgeon General Cumming was scheduled to give the opening address of the Conference, to be followed by a general symposium for both health officers and public nurses on "Accomplishments for the Year." Dr. Frederick Adams, Health Officer of Border Cities, Windsor, Ontario, was to talk on "Smallpox," Langdon Pearse of Chicago on "Sewage Disposal for Large and Small Municipalities," Dr. George H. Bigelow, Commissioner of Health of Massachusetts, on "Milk Supplies," Dr. O. P. Kimball of Cleveland on "Endemic Goitre and Public Health," Dr. Josephine Baker of the Children's Bureau on some phase of child hygiene and Dr. Harris Wilson of the Cleveland Mouth Hygiene Association on "Mouth Hygiene in Cleveland." The one open evening session, was a joint meeting with the Western Michigan Dental Association.

Friday's sessions were to be taken up with talks by William R. Davis, D.D.S., Director of the Bureau of Mouth Hygiene and Preventive Dentistry of the Michigan Department of Health, on "County Mouth Hygiene Programs," Dr. George H. Ramsey, Associate Professor of Epidemiology, Johns Hopkins University, on "The Prevention of Diphtheria," Carolyn Van Blarcom, R. N., New York, on "Prenatal Nursing," and Dr. B. Bernbaum of Detroit, on "Scarlet Fever."

SEWAGE DISPOSAL PLANT INSPECTIONS

Sewage disposal plants in Powers, Escanaba, Gladstone, Lapeer, Imlay City, Plymouth, Wayne County Tuberculosis Sanitarium, Pontiac and Royal Oak were inspected during October by Willard F. Shepard of the Bureau of Engineering.

The sewage disposal system at the State Tuberculosis Sanitarium at Howell was revamped during October by R. J. Faust of the Bureau of Engineering. The Sanitarium has the only sewage disposal system of its kind in the state, the trickling filter with stationary nozzle type.

STREAM POLLUTION PROGRESS

All of the Michigan Sugar Company factories in the state and practically all tomato canning factories in Hillsdale, Lenawee and Monroe counties, were visited by John M. Hepler of the Bureau of Engineering during October. Mr. Hepler has charge of stream pollution for the Department of Health, working with Homer Murphy of the Department of Conservation, and the Attorney General's Department. Encouraging progress is reported both by municipalities and industries along the line of prevention of stream pollution.

BY RADIO

Radio programs over WKAR in which the various state departments co-operate with Michigan State College began October 29, the Michigan Department of Health opening the series. A resume of "The Conditions of Highway Water Supplies in Michigan" was given by E. D. Rich, Director of the Bureau of Engineering, "Teaching Health to Children" was discussed by Marjorie Delavan, Director of the Bureau of Education and "Avoiding Colds" was the topic of Dr. Frank Poole, special lecturer of the department.

On December 10 the department again goes on the air, with Dr. Olin speaking on "Pneumonia," Dr. Max Marshall talking on "Making Diphtheria Antitoxin," and Dr. Lillian Smith discussing "Winter Sun Baths for Babies."

All state department programs start at 8 o'clock and close at 9.

EVALUATING BIOLOGICAL PRODUCTS

During October the department manufactured and distributed to physicians and health officers biological products valued at $15,188.90. This valuation is based upon the old contract prices held by the department, prices lower than those current today.

HAVE YOUR CONTAINERS WEIGHED

The Michigan Department of Health laboratory is having delivered daily in the specimen mail an increasing number of containers without the correct amount of postage. Postage should vary with the specimen. A container with a sputum jar or one packed with four or five blood vials will weigh more than one containing only a swab. Lack of postage delays the delivery of the specimen in the laboratory. We, therefore, urgently request the Michigan doctors to have their containers weighed and the required postage attached before sending them through the mail.

VISUAL EDUCATION

Report from the Bureau of Education for October shows a new series of five posters released for use in junior and senior high schools. The posters are 19x26, printed in black and white, on a heavy grade of paper. A total of 54 sets were sent out even before formal announcement was made that the posters were ready. Any school in the state can secure the posters without charge.

In answer to 996 requests, 70,906 pamphlets were mailed from the Department during October. By far the larger part of these were sent to teachers or public health nurses for school use.

OCTOBER'S COMMUNICABLE DISEASES

The situation in regard to communicable diseases reported for October is very gratifying, with the exception of diphtheria. This showed 792 cases reported for the month as compared with 370 cases for September and 476 cases for October, 1925. But this is still below the five year average of 934.

It is of interest to note that the very large portion of this increase occurred in the city of Detroit. For October, 1926, there were reported 407 cases of diphtheria in Detroit as compared with 194 cases in October, 1925. This is an increase of 213 cases, equivalent to 110 per cent, whereas the balance of the state increased from 282 cases in October, 1925, to 385 cases in October, 1926—an increase of 103 cases equivalent to about 37 per cent. On the whole the increase amounted to 66 per cent for the entire state. There has been a decided tendency in Detroit as well as in other parts of the state to show an increased virulence.

PREVALENCE OF DISEASE

October Report

Cases Reported

	Sept. 1926	Oct. 1926	Oct. 1925	Average 5 years
Pneumonia	112	239	337	288
Tuberculosis	509	554	353	407
Typhoid Fever	129	95	211	183
Diphtheria	370	792	476	934
Whooping Cough	517	431	521	337
Scarlet Fever	321	665	667	892
Measles	78	112	160	270
Smallpox	12	34	13	69
Meningitis	6	6	12	11
Poliomyelitis	25	32	10	51
Syphilis	1,198	1,473	1,349	972
Gonorrhea	987	1,187	1,093	963
Chancroid	11	20	9	13

CONDENSED MONTHLY REPORT

Lansing Laboratory, Michigan Department of Health

October, 1926

	+	−	+−	Total
Throat Swabs for Diphtheria				1406
Diagnosis	64	437		
Release	211	326		
Carrier	3	341		
Virulence Tests	12	12		
Throat Swabs for Hemolytic Streptococci				608
Diagnosis	103	216		
Carrier	18	271		
Throat Swabs for Vincent's	22	473		495
Syphilis				5619
Wassermann	1	5		
Kahn	882	4671	56	
Darkfield	3	1		
Examination for Gonococci	161	1192		1353
B. Tuberculosis				450
Sputum	90	324		
Animal Inoculations	1	35		
Typhoid				269
Feces	33	127		
Blood Cultures	2	33		
Widals	14	40		
Urine		20		
Dysentery				99
Intestinal Parasites				12
Transudates and Exudates				494
Blood Examinations (not classified)				686
Urine Examinations (not classified)				314
Water and Sewage Examinations				603
Milk Examinations				93
Toxicological Examinations				18
Autogenous Vaccines				9
Supplementary Examinations				195
Unclassified Examinations				516
Total for the Month				13239
Cumulative Total (fiscal year)				54795
Decrease over this month last year				9519
Outfits Mailed Out				14443
Media Manufactured, c.c.				674350
Typhoid Vaccine Distributed, c.c.				1350
Diphtheria Antitoxin Distributed, units				59268000
Toxin Antitoxin Distributed, c.c.				116500
Silver Nitrate Ampules Distributed				3764
Examinations Made by Houghton Laboratory				1970
Examinations Made by Grand Rapids Laboratory				4009

The Journal
OF THE
Michigan State Medical Society
ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

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B. F. GREEN.....Hillsdale
B. H. VAN LEUVEN.....Petoskey

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Grand Rapids, Michigan

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DECEMBER, 1926

Editorials

GREETINGS

AROUND THE CORNER

Around the corner I have a friend,
In this great city that has no end;
Yet days go by and weeks rush on,
And before I know it a year has gone,
And I never see my old friend's face;
For life is a swift and terrible race.
He knows I like him just as well
As in the day when I rang his bell
And he rang mine. We were younger then—
And now we are busy, tired men—
Tired with playing a foolish game;
Tired with trying to make a name.
"Tomorrow," I say, "I will call on Jim,
Just to show him that I'm thinking of him."
But tomorrow comes—and tomorrow goes;
And the distance between us grows and grows.
Around the corner! yet miles away . . .

* * *

"Here's a telegram, sir," "Jim died today!"
And that's what we get and deserve in the end—
Around the corner—a vanished friend.

CHARLES HANSON TOWNE

The passing years roll by with a momentum that increases in pace crowding out, far too frequently the many worth while things—especially the friends around the corner. Our social program of life has, however, established a season of respite from the days routine—a period wherein we may pause and call on "Jim," ere he departs upon life's last journey. We approach that season this month.

Our Christmas greeting then contains the sincere wish for a merry yuletide for each of our members. Attached is the wish that it may witness the renewal and recementing of friendships that we are so prone to neglect. Cultivate your friends for true friends are life's richest assets. A host of friends will bring to you the merriest of Christmases.

MINUTES—NOVEMBER EXECUTIVE COMMITTEE MEETING

The Executive Committee of the Council met in Ann Arbor at 6 p. m., Nov. 10, 1926. Present: R. C. Stone, B. R. Corbus, J. D. Bruce, President J. B. Jackson, Ex-President C. G. Darling, F. C. Warnshuis, Harvey G. Smith.

1. The secretary was instructed to advise the president of the Wayne County Medical Society that the State Society would aid in defraying the expenses of outside speakers appearing before the General Meetings of the society up to the amount of $500 . The same to be appropriated from the Post-Graduate budget and credited to the Post-Graduate work of the society.

2. The program outlined by the secretary for the Legislative Conference in Lansing on Nov. 16 was approved.

3. The dates determined for the Annual Meeting of the Council in Ann Arbor were Jan. 12 and 13, 1927.

4. The secretary was directed to invite to a Conference Dinner on Jan. 12 the following: Board of Registration, Commission of Health, Deans of Medical Schools, President of the University, Department Heads of the Medical Departments, Professors of the Detroit College of Medicine and Surgery, Members of the Council.

5. As a committee, Council or as representative of the State Society, the policy of not endorsing any candidate for state appointive office was established.

6. The advisability of compiling a state medical history and providing the necessary considerably large appropriation of funds was referred to the January Council Meeting.

7. An appropriation of $100 was made to defray the expense of the work of organizing a State Woman's Auxillary.

8. President Jackson announced the ap-

pointment of the following State Hospitals and Charity Survey Committee: R. R. Smith, Chairman; W. J. Stapleton, Jr., W. H. Marshall.

9. The secretary was directed to invite the section officers to the December Executive Committee Meeting for a conference relative to the scientific program for our next annual meeting.

10. A motion of Corbus-Bruce the senior alternate delegate was designated to serve for the Secretary-Editor in the House of Delegates of the American Medical Association.

12. Executive Secretary Smith rendered a detailed report of his work and county conferences.

Adjourned at 11 p. m.

F. C. Warnshuis, Secretary.

OUR BIRTHDAY—TWENTY-FIVE YEARS

With this issue The Journal completes it's twenty-fifth volume—a quarter of a century of existence for our official organ of publication.

Volume 1, Number 1, was issued in September 1902, the first editor being Dr. Andrew P. Biddle, then serving as secretary of our society. Dr. S. Edward Sanderson was the business manager.

The following was the opening editorial:

THE JOURNAL

"It is not necessary to enumerate the many advantages of a monthly journal over the annual transactions for a place of record of the doings of the society. One of the principal ones, however, will be the opportunity it affords to the officers of the society to come into more intimate and frequent touch with the members, and to the members to present their views, for we wish it understood that we invite to its columns all honestly expressed criticisms. The Journal is the official organ of the State and County Societies, and we expect soon to have it the record place for the proceedings of the component societies. We invite correspondence on any matter of common interest.

The annual dues cover the subscription to The Journal.

We enter the field of journalism simply as a better ground to plant the seeds of common interests and to reap the benefit of closer acquaintance. We enter with no feeling of rivalry nor competition, and to those journals already here, which have in the past graciously recorded the doings of the society, we express our sincere wishes for their continued success."

The following have served as editors:

Dr. A. P. Biddle, Detroit, 1902-1906—4 years.

Dr. B. R. Schenck, Detroit, 1906-1910—4 years.

Dr. Wilfred Haughey, Battle Creek, 1910-1913—3 years.

Dr. F. C. Warnshuis, Grand Rapids, 1914.

During the period from 1866, when meetings were resumed following the Civil war, the following have served as secretaries:

1866-1886—George E. Ranney.
1886-1890—George Duffield.
1890-1895—C. W. Hitchcock.
1895-1900—Collins H. Johnson.
1900-1906—A. P. Biddle.
1906-1909—B. R. Schenck.
1909-1913—W. H. Haughey.
1913- —F. C. Warnshuis.

Previous to 1902 the records of our society were published in one yearly volume—The Annual Transactions. We have on hand the printed transactions and minutes from the year 1820.

As one peruses these reports, extending over a century of time, the muses draw many a facinating and fantastic picture. Each issue, each period reveals men and incidents that are prophetic of the advancement of our science and the progress recorded is in many instances forecasted years before actualities were established and accepted. Some day we hope to find the time to weave into a narrative these incidents, events and facts that created and made possible our present existence and status.

As The Journal enters upon it's second quarter of a century of life the assurance is advanced that the Publication Committee and the Editor will ever conscientiously endeavor to maintain in full degree the purpose and object of existence. In doing so the inspirations of the past, the achievements of the present and the ideals of the future will govern the editorial direction.

THE ANN ARBOR CLINIC

On November 11, 12 and 13, 347 of our members attended the University Clinic held under the auspices of the State Society. The following schedule of clinics was carried out:

PROGRAM

Thursday and Friday—Hospital Amphitheatre

9:00 a. m.—Welcome.....Dr. Haynes
9:10 a. m.—Fractures.....Dr. Badgley

10:00 a. m.—Heart.....Dr. Wilson
11:00 a. m.—Neurological Diagnosis.....Dr. Camp
12:00 a. m.—Prenatal Clinic.....Dr. Peterson
1:00 p. m.—Luncheon (Ground Floor)
2:00 p. m.—Management of Goitre Cases.....Dr. Eberbach
3:00 p. m.—Hypertension.....Dr. Newburgh
4:00 p. m.—Surgical Technic.....Dr. Cabot
7:00 p. m.—Informal Dinner, Thursday, Michigan Union

Speakers—President C. C. Little
Dean Hugh Cabot
Regent W. H. Sawyer
Dr. John B. Jackson

Thursday and Friday—Pathology Amphitheatre

9:00 a. m.—Practical discussion of medical procedure with demonstration.....Dr. Youmans
10:00 a. m.—Pediatric Clinic.....Dr. Cowie
11:00 a. m.—Dermatological Clinic.....Dr. Wile
12:00 a. m.—Acute Upper Respiratory Infections and Pneumonia.....Dr. Canfield
Dr. Field
1:00 p. m.—Luncheon (Ground Floor)
2:00 p. m.—Acute Abdominal Conditions.....Dr. Cabot
3:00 p. m.—Obstetrical and Gynecological Clinic.....Dr. Peterson
4:00 p. m.—Management of Cases with Stomach and Gall-bladder Disease.....Dr. Bruce
Dr. Hickey
Dr. Youmans
7:30 p. m.—Friday, Lectures in the Auditorium of the Natural Science Building by Dr. Morris Fishbein and Mr. Lee A. White.

Saturday

8:00 a. m.—Hospital Amphitheatre—Use of Ultra-Violet Rays and Diathermy in University Hospital.....Dr. Pohle
9:00 a. m.—Hospital Amphitheatre—Head Injuries.....Dr. Peet
10:00 a. m.—Pathological Amphitheatre—Clinical Pathological Conference.....Dr. Warthin
Dr. Hickey
Dept. of Medicine
Dept. of Surgery

There will be daily demonstrations in the Pathological and Clinical Laboratories; in the wards of the hospital; in the Out-Patient Departments, and in the Department of Roentgenology.

A special demonstartion will be held Thursday and and Friday from 9:30 to 12:00, and Friday and Saturday from 2:00 to 4:30 by the Department of Roentgenology in Room 431 on Ground Floor.

The number in attendance signified the need and desire for such opportunity.

That man who is ever alert and at the call of the ill night and day within his community; That man who is ever ready to give the best he has for the advancement and preservation of his community; That man who has no deep well spring near by from which he may renew his knowledge or tap new sources and new advances came to study and to learn of those who are designated by their commonwealth to investigation, to research, to the establishment of facts in Scientific Medicine. He came not in vain but received that for which he came. His expression was an unanimous one of approval and his sincerity was evidenced by his statements and questions: "This conference will be an annual event for us will it not? and again, Will it be possible to have a one week course of study in some speciality? We ought to have more opportunity to come here for study and conference."

Dr. Clarence Cook Little, president of the university stated in his address at the dinner, that no university is worth the snap of the finger if the boundary of that institution is that of the Campus. The field of the university is co-extensive with the state or the outposts of the alumni. They are students, they have contributions to make and likewise the university has and always should have contributions to offer its ever increasing student body. The university should be the center of research and the facts revealed must become available to every alumnus for the advancement of the Commonwealth. Such is the function of the university."

The doctors who attended the conference caught the vision of the president, they caught a new vision of their science as it again took on new aspects and new endeavors. Every man returned to his own field of endeavor and accomplishment ready to aid in the true function of the university. Ready to be a more useful member of his State Medical Society.

We appreciate the services contributed by the members of the University Hospital staff. We realize the added burden that they assumed and tender the thanks of our society for the labor and effort expended for our benefit by each member of the staff.

LEGISLATIVE CONFERENCE

Upon the invitation of the State Medical Society a legislative conference was held in Lansing on Nov. 16. Participating in this conference were representatives from the following organizations concerned with health and medical practice in the state: State Medical Society, Deans of our two Medical schools, State Commission of Health, Tuberculosis Society, Nurses Association, Hospital Association, Dental Society, Board of Registration and Chairmen of Legislative Committees of several of our County Societies. The attendance numbered 94.

President Jackson presided and outlined the object of the conference. Dr. W. D. Woodward of the Bureau of Legal Medicine and Legislation of the A. M. A. spoke on Legislative Problems and Conduct. Each organization then set forth its legislative problems and needs. The points raised evoked a very profitable and enlightening discussion.

The following definite action resulted: First, that it is the consensus of opinion that the State Council of Health should secure the introduction of a bill making it permissive for counties to employ County Health Officers and establish County Health Boards. Second, that a bill be introduced permitting the employment of county health nurses, dentists and doctors. Third, that the president be authorized to invite each organization represented to appoint a representative which appointees will constitute a Central Legislative Bureau for the state in order that the legislative interests and needs of all may be centralized and correlated for the purpose of securing desired legislation and the enlisting of the prestige of these organizations in the support of indicated legislation as well as to oppose pernicious enactments.

It was felt that this conference was an epochal event by reason of the fact that it attained the union of all state organizations concerned with public health and medical affairs thereby amalgamating these associations accustomed in the past to pursue individualistic courses. Secondly, it centralizes their legislative activity making available the combined judgment and support for the good of all. It will prevent duplication, misunderstanding and individualistic action. This conference records an achievement by your State Society that gives every promise of desired benefits for the health interests of the people as also for our members.

MEDICAL EDUCATION IN FLINT—GENESEE COUNTY

There are several ways by which members of the medical profession in Flint, may receive education in scientific medicine. Consequently with such opportunities afforded, there should be no reason why members of the profession in this city should not keep abreast of medical times.

The Genesee County Medical Society holds semi-motnhly meetings for 10 months during the year. The Program Committee of this society arranges the program to conform to the idea of a post-graduate course in medicine, surgery, and the specialties. The speakers are chosen with special care as to their qualifications, and usually are representatives of the various nearby medical centers.

The Staff of Hurley Hospital meets once a month, throughout the year, and at these meetings the fatal cases of particular interest are presented, and freely discussed, from standpoint of diagnosis and treatment.

Every Sunday morning excepting July and August, the Chief of Medical Service at Hurley Hospital holds a clinical conference lasting two hours, and open to all members of the Hospital Staff. At this meeting any case of interest, in or out of the hospital, is presented by the attending physician or surgeon, and freely discussed from all angles by those present. These meetings have become very popular and are the most instructive of all.

In addition to the above, there are the M. S. M. S. Post-Graduate Conference, the Tri-City Medical Society, the exchange meeting with the neighboring county societies, and the monthly staff meetings of Women's Hospital.

This makes a total of 85 meetings of a scientific medical nature which members of the Genesee County Medical Society may attend.

DISASTER RELIEF

The perfected plan of providing medical relief and service in the event of large disasters resulted from conferences between representatives of the American Medical Association and the American Red Cross. The plan provides for systematized supervised medical relief in contra distinction to disorganized medical care that has characterized this service during the first days following a large disaster.

Under this new plan medical services will be forthcoming from organized teams dispatched to the scene of disaster. The channel of relief will be directed through these avenues: the secretary of the American Medical Association, the secretary of State Societies and the secretary of County Societies. In the event of a call for help the National Officer will receive the call from the Red Cross. He in turn will transmit it to the state concerned and the requisite number of local teams will be ordered to the scene of accident.

The plan entails that each County Medical Society shall organize such a team or teams. These teams should have a commander or head officials and should be composed of surgeons, specialists, internist, clerk, nurses and lay members. The laymen will be utilized to supply food, blankets and quarters for the injured and to establish identification of the injured. If possible a supply depot having blankets, cots and surgical dressings should be established so as to be available for immediate use. Local conditions should surveyed so as to have plans of buildings that can be used for emergency hospitals to supplement the local hospital

accomodations. Available ambulances should also be enlisted. Your local American Legion Post will supply excellent personnel if they be but enlisted. We urge that the organization in your county be promptly perfected.

ESSENTIALS OF AN APPROVED CLINICAL LABORATORY

DEFINITION

A clinical pathologic laboratory is an institution organized for the practical application of one or more of the fundamental sciences by the use of specialized apparatus, equipment and methods, for the purpose of ascertaining the presence, nature, source and progress of disease in the human body.

Only those clinical laboratories in which the space, equipment, finances, management, personnel and records are such as will insure honest, efficient and accurate work may expect to be listed as approved.

LOCATION, HOUSING AND EQUIPMENT

The housing and light should be adequate for the proper functioning of the laboratory. The equipment should be sufficient to permit all essential technical procedures to be properly carried out.

SCOPE

A general clinical laboratory should be prepared to render the following services:

(a) Hematologic. Blood counts, blood groupings and coagulation tests, and tests for blood parasites in general.

(b) Biochemical: Qualitative and quantitative analyses of urine, blood, gastric contents, body fluids, feces, intestinal contents and cerebrospinal fluids; renal and hepatic function tests and basal metabolism.

(c) Bacteriologic: Bacteriologic diagnosis; preparation of vaccines and blood and body fluid cultures.

(d) Serologic: Serologic diagnosis; agglutination, complement fixation, or precipitin and lysis tests.

(e) Pathologic: Preparation of paraffin, celloidin or frozen sections, microscopic and gross pathologic specimens and necropsies.

(f) Parasitologic. Protozoal and zoological diagnoses.

PERSONNEL

(a) The Director.—The Director of an approved clinical laboratory should be a graduate of an acceptable college or university of recognized standing, indicating proper educational attainments. He shall have specialized in clinical pathology, bacteriology, pathology, chemistry, or other allied subject, for at least three years. He must be a man of good standing in his profession.

The director shall be on full time, or have definite hours of attendance, devoting the major part of his time to the supervision of the laboratory work.

The director may make diagnoses only when he is a licensed graduate of medicine, has specialized in clinical pathology for at least three years, is reasonably familiar with the manifestation of disease in the patient, and knows laboratory work sufficiently well to direct and supervise reports.

Where the director is not a licensed physician the laboratory shall issue no reports containing diagnoses and prognoses, unless such diagnoses and prognoses are made and signed by a staff physician having the qualifications specified above for a medical director.

(b) Assistants.—The director may have a corps of qualified assistants and technicians, responsible to him, and for whom he is responsible to carry out promptly, intelligently, and accurately the several kinds of service the laboratory offers. All their reports, not only of tissues but also of all bacteriologic, hematologic, biochemical, serologic and pathologic data, should be made to the director.

REPORTS

An approved clinical laboratory should make its reports through the director. If the director is not a physician, any report making diagnoses or prognoses shall carry also signature of the staff physician, and such reports shall be made solely to the physician in charge of the patient. All blanks for reports and other documents should have the name of the director printed on them, and if of a diagnostic or prognostic character, the name of the staff physician also.

RECORDS

Full records of all examinations made by the laboratory, suitably indexed and filed, are essential. Every specimen analyzed in the laboratory should be given a serial number, which should follow that specimen in the records and reports. When the laboratory report concerns a hospital patient, an exact transcript of the laboratory record should be appended to the hospital case record. Each specimen submitted to the laboratory should have appended pertinent clinical data.

LIBRARY

The laboratory should be provided with, or have convenient access to, a library includiny current scientific books and journals on all the various subjects required in its work.

FEES

There should be no dividing of fees or rebating between the laboratory or its director and any physician, corporate body or group.

PUBLICITY

Publicity of an approved clinical laboratory should be in professional good taste and be limited to statements of fact, as the name, address and telephone number of the laboratory; names and titles of the director and other active, responsible personnel; fields of work covered; office hours; directions for sending specimens, etc., and should not contain misleading statements or claims of unusual superiority. It should not advocate medical fads nor lay undue stress on the importance of laboratory findings.

Only the names of those rendering regular service to the laboratory should appear on letterheads, or any other form of publicity as being connected with the laboratory.

Advertising matter should be directed only to physicians either through bulletins or through recognized technical journals, and never to the nonprofessional public, as, for example, by announcements in popular journals and periodicals, circulars, pamphlets, telephone lists or other means.

The above essentials have been established by the Council on Medical Educations and Hospitals of the American Medical Association. After careful investigation the following Michigan laboratories have been so approved.

Detroit—Detroit Clinical Laboratory, 2033 Park avenue, W. L. Brosius, director; National Pathological Laboratory, David Whitney building, Fred J. Eakins, director; Owen Clinical Laboratory, Stroh building, Robert G. Owen, director.

Grand Rapids—Clinical Pathological Laboratory, 110 East Fulton street, James S. Brotherhood, director; Grand Rapids Clinical Laboratory, Metz building, George L. Bond, director.

Saginaw—Central Laboratory, 302 South Jefferson street, Oliver W. Lohr, director.

IS MEDICINE DRIFTING INTO LAY LAY CONTROL?

The above is the title of an article appearing in October issue of California and Western Medicine by Rexwald Brown, ex-president of the Southern California Medical Society. Brown cites as evidence of lay control the engulfing of large numbers of medical men as employes of life, health and accident insurance companies, departments of sanitation, educational hygiene in public schools, voluntary organizations promoting health movements and clinics, research foundations. Hospitals and medical schools are largely adminstered by lay-boards or trustees. Foundations influence our medical colleges and universities. Social services providing medical care and fostering medical pauperism. All these and many other agencies that employ full-time medical men and subject them to the policies of administrative officers and their lay control. And the author continues:

In the portrayal of these outline facts there is no intent to belittle the efforts being made by sincere and earnest lay men and women toward a healthier and happier world in which to live. But a note which insistently obtrudes itself throughout all these activities is disparagement of the capacities of physicians as thinkers, doers, administrators, and leaders outside the confines of actual medical practice, the personal relationship of physician to the sick patient.

All of which should be our concern else in a few years we will be fighting for our very existence.

What is the answer? Brown goes on to state: "We have permitted ourselves to be walled off from society at large.—Our principles of ethics has imbued the medical mind with conviction that aloofness from matters other than those of personal service to the sick is fundamental to the spirit of the code.—Aloofness has become a despot and has made medical men slaves fearful of the master and fearful of the fellow-slaves."

Only loyalty to our profession withholds our recognition that public opinion toward us is far from endorsement of us and our methods. Scientific medicine must face the fact, however, that the public has lost confidence in us measurably, not alone as regards our inadequacy in health leadership, but even as competent in the management of disease. The responsibility for this condition rests squarely on the shoulders of medical men.

Common sense compels us to admit something is wrong within the structure of organized scientific medicine. We are losing caste, failing to register the worth of our ever mounting knowledge, muffing our opportunities for higher service, and we are in danger of becoming pawns instead of guides in progress. Medical men should be filled with shame that we are unable to acquaint the public with the values our profession can contribute to a growing civilization. Instead we bow our heads to organizations of lay people, as The American Association for Medical Progress, who pitying our poor endeavors, yet believing in us, attempt to do educational work for and in support of us.

Medicine's way to a position of strength in the minds of the people involves a change more profound than informative broadcasting or alterations in the character of pre and actual technical studies. The change must be that of nursing into compelling expression a voice now very weak, which carries, however, the truest note in scientific medicine's structure of service. The highest ideal of medicine is the promotion of individual, community, and national health.

The teaching of the science of medicine needs drastic revision so that a new tide of thought may sweep

through the classrooms of the medical schools. In addition to studies in the science and art of medical practice, new course muse be given inculcating students with knowledge of their high responsibilities as law givers to the people and as teachers of health. Graduates of today tell that during their years of study little or nothing is given them of the history of medicine through the centuries, of the relationship of medicine to life at large, of the forces ever tending to destroy scientific medicine, of the prejudices and ignorance of an indifferent public, of social spheres where the knowledge of the medical man could be useful, and of the worth of medicine in helping to advance civilization. And the subject of medical ethics which looms up so prominently after graduation is given only cursory consideration in most schools. In discussions of medical problems, young physician graduates of outstanding medical colleges have been heard to say that their introduction to ethics consisted of their being handed the Principles of Ethics at or about the time of their graduation.

Medical education in and out of college needs the attention of the members of organized scientific medicine. The errors of the past, the stupidities of our insularity, our failures to impress humankind of our values to them in all the spheres of life call us to an accounting with ourselves. We, the medical profession, must survey, must reinspect our positions in the light of present-day thought, which is throwing aside the hindrances to progress imposed by precedent, custom, and tradition. Where is scientific medicine heading, what is its concern with the vital problems of today, is its knowledge becoming humanized, and is it hearing aloft the emblems of leadership?

We medical men have become rather set in our ways. Consider our weekly, monthly or annual medical gatherings. There are hundreds of them—county, special, state, and national medical society meetings. And what is the general order of procedure in all of them? Over 90 per cent of the time is devoted to the reading and discussion of scientific papers and presentation of clinical material. The worth of an adequate number of such meetings is not decried. They are fundamental to the continuous diffusion among us of the discoveries and experiences in the fields of research and clinical medicine. Teh point is that our increasing familiarity with special fields of knowledge is blinding us to our relationships to life as a whole or is preventing us giving due consideration to our responsibilities in general affairs.

There must be an awakening to new purposes, new duties and expended activities if organized scientific medicine is to be other than a competitor for the management of the sick with the pseudo-scientific and the ignorant and fanatical cultists. We must shatter our attitude of reserve and come out into the open as forceful advocates of the great aim of scientific medicine—the promotion of health.

Health is fundamental to achievement in all spheres of human activity. Scientific medicine should work continuously not only to seek out the laws of health, but also to make these laws operative in a progressive civilization. Scientific medicine, the facts of which are demonstrable and verifiable by observation, experiment and test, needs no defense, but the disciples of medicine who know the facts must learn that it is incumbent upon them to inspire confidence in themselves as expositors of the knowledge.

Through the avenues of the local, state, and national medical societies must scientific medicine enter the arena of large human service. Our attack must be first upon the paralyzing routine of our meetings and upon a complaisant acceptance that our learning is for the elect only. Let us have a new order of procedure—half of each meeting or whole meetings at frequent intervals to be devoted to consideration of the matters immediately related to medical practice as to their effect upon our profession and upon society at large.

AN OUTSTANDING EXAMPLE OF MEDICAL LEADERSHIP

In these meetings we must face the problems which we now ignore and which the public tries to solve with more or less contemptuous disregard of medicine's counsel and guidance. Physicians must develop powers of leadership along all medical fronts. The wider biologic knowledge possessed by physicians as a class enables them better than others to formulate the policies which pertain to municipal and national health and sanitation, to educational hygiene, to medical economics, to hospital management, to social service, to medical education, and to the propagation of a virile race.

The policies formulated, medical men through intensive, associate effort must be the powers which introduce and influence acceptance of the policies in the life of the world. Is there any reason why we cannot be initiators, administrators and executives in our own fields as business men, financiers, engineers and others are in theirs?

To say that we cannot is to forget that in the science of medicine there looms forth a figure of unparalleled administrative genius, Dr. W. G. Gorgas, whose life should ever stimulate us to the continued insistence that the public should adopt those scientific measures which create health. Doctor Gorgas, an executive and compelling force in the domain of medicine was the man who made it possible to build the Panama Canal. And until he became acclaimed the world over for his tremendous achievement he was assailed and derided, and his work was interfered with by the lay control in charge of the general administrative business and engineering conduct of the building of the canal. Noted lay executives and big men of affairs called him a stupid doctor with nonsensical ideas. Yet business acumen and engineering skill would have failed entirely in putting through the canal without the underlying medical knowledge made effective by a capable medical administrator.

Organized scientific medicine must make itself a dynamic force, respected and honored as basic to all progress. This is medicine's greatest responsibility. Medical men must take the offensive and convince humankind of the wealth of resources in medical science. The worth of the profession should be so splendidly revealed by the labors of physicians that great warmth of respect and support will always be conceded by the public. The place of medical science in the esteem and confidence of the lay mind should be so high that philanthropists would never hesitate to assist financially in the efforts made by the profession to better living conditions and alleviate suffering.

Medical men should make it obligatory upon themselves to render strict business accountings for the management of public service institutions and other trusts, but the politics directing the expenditures should not be dictated from without the circle of medicine. The rules governing clinical practice, medical research and the management of medicine's activities should emanate from within the profession and not from the lay public, whose efforts are so often dictated by business experience.

Scientific medicine is a profession whose evolution began as Osler has said in that wonderful Grecian era when Hoppocrates lived and received his inspirations from the spirit of the times which asked of all measures, "Do they make like a better thing?" Business asks, "Do these measures produce a profit or make expenditures and income balance?"

A cloak of mystery has far too long been wrapped about the science of medicine. The disciples must tear it aside. The public must be taught that physicians are not in league with occult forces, that medical knowledge, like all other scientific knowledge, is subject to the laws of verifiable fact, that medical knowledge is not divisible into sects, and that no knowledge is of more worth than that which conduces to self-preservation and the continuance of the race.

A DOCTOR'S MEMORIES

The delightful and informing record of a long, active and useful life. For nearly half a century Dr. Vaughan has been a leading figure among the physicians of this country. As Dean of the University of Michigan Medical school he built up that great institution to its present importance. He is our greatest authority on epidemics. His work on the commissions that investigated the typhoid epidemic during the Spanish War and the flu pneumonia epidemic during the World War was of enormous value. He has been president of the Association of American Physicians and the American Medical Association, and is chairman of the division of medical sciences of the National Research Council.

In this chatty and charming auto-biography he tells of days in northern Missouri before the Civil War, of his education and his work as an educator; of the many men and women prominent in the world of science and culture and war and politics with whom he was brought in contact; of the life of a practising physician; and the experiences of a medical expert on the witness stand. His interests are wide, his judgments sharp and just, his fund of anecdote lavish.

Dr. Vaughan has had the eye to see the world he crossed in his busy life, and the pen to tell what he saw. His story is pleasing, interesting, informing, accurate. It has scientific, educational, personal and historic value.

American men of medicine pass steadily before a mirror in an unbroken procession for 50 years. And he is interested not only in physicians. but in all figures of the scientific world. He considered Eliot of Harvard, White of Cornell, and Angell of Michigan the three greatest college presidents of their day. His comments upon James Bryce, Sir Frederick Pollock, Francis Hopkinson Smith, Joseph Jefferson, Wu Ting Fang, Theodore Roosevelt and Woodrow Wilson as college visitors are kindly, keen and unique. The account of his studies under Koch and Frankel, Roux and Pasteur, holds decided interest. His estimate of Pasteur and his criticism of Koch's bad manners seem equally sharp and just. He heard Canon Farrar preach, surprised Dr. Abraham Jacobi in his garden, voted for Horace Greeley and was in a yellow fever epidemic as early as 1888. He has the same joy in telling jokes on himself, in poking fun at fraud and superstition, recounting medical procedure, describing the uniform of Roosevelt and the bed slippers of Bryce.

His Spanish War experience brought him close to Walter Reed and Gorgas; his World War experience put him in touch with Gorgas again, with Braisted, Blue, Martin, Welch, Simpson and Grayson.

There is an element of greatness in a doctor's memories that makes it catch at the imagination and the heart.

The above is but a hurried comment upon a book that interested us by it's fascination, coming as it does from one who was one of us, our ex-president and friend. We feel quite sure that those who knew Vaughan will be keen to read this auto-biography that is tempered by the calm reflections influenced by the afternoon of life. We of Michigan take pride in the achievements of him who did much to enable us to attain our present position in the medical and organizational world.

Editorial Comments

The following from the *Wayne County Bulletin* imparts additional reasons for the high cost of sickness. We do not blame the nurses—we do not blame hospitals for making it necessary to employ so large a number of nurses because of inadequate hospital nursing care. In desperately ill patients, a special nurse is required and she earns her $7 to $9 per day. The average appendectomy or laparotomy does not require a special nurse, whose efforts consist mainly of giving a morning bath and arranging the flowers. Hospital tendencies toward an undermaned nursing staff causes the continuation of a demand for special nurses for normal cases.

At the last meeting of the Detroit District of the Michigan State Nurses Association, held Oct. 1, 1926, it was voted to raise the rates for Private Duty Nursing $1 per day. This raise is to become effective Nov. 1, 1926. Rates will be as follows:

General cases—$7 per day for 12 hours.
General cases—$8 per day for 20 hours.
Obstetrical cases—$8 per day for 12 hours.
Obstetrical cases—$9 per day for 20 hours.

Communicable, such as scarlet fever, diphtheria, smallpox, erysipelas—$8 per day for 12 hours; $9 per day for 20 hours.

Multiple nursing in hospitals, two patients—$4.50 per day for each patient.

Multiple nursing in hospitals, three patients—$3.33 1-3 per day for each patient.

The following from the Michigan Daily imparts the high points of the adresses of President Little and Dean Cabot at the dinner given in connection with the Ann Arbor Clinic.

"Michigan can and will have one of the great medical schools of the world, if the cornerstones of modern research are laid here in the immediate future." In these closing words President Clarence Cook Little finished his plea for increased co-operation between the Medical school of the University and the practitioners of the state before the banquet of the Michigan Medical society last night in the main dining room of the Union.

The meeting being held in Ann Arbor the last three days of this week is the first annual graduate clinic of the University. President Little dedicated his speech to the project of making the Medical school outstanding through achievements in the specialized lines of endeavor.

The first reason which he gave for his faith in the undertaking was that the University was now in possession of the greatest teaching hospital in the country. He complimented the medical faculty as being a group of men who have left the stamp of their individuality upon thousands of graduates. Carrying on, he said that one of the essentials of greatness was the continuation of the present system whereby each of the counties sends its quota of patients to the hospital for special treatment. "The weak arm of the service at the present," he said, "is our lack of special units for the carrying on of this class of work. The Simpson Memorial Institute for Medical Research is an example of what is needed. It has been opened but recently and will later especially do work in the field of pernicious anaemia. Provision of housing conditions for tuberculosis patients would create and insure research in that line. Cancer, another one of the unconquered maladies for which there is at present in the state no separate department or hospital, should also receive attention. There are now in the hospital too many convalescent children who are taking up expensive time and room. They should have their own institution where educational facilities could be incorporated along with medical attention. Such a place would serve as a model for other communities who desire something in that line."

"Radio-active substances," he continued, "have handed to the profession the greatest power in years and at present we do not know properly the dosage of them. This is the place where such problems should be worked out. Research in radio-therapy is a great cornerstone in medicine, and schools which feature and develop it will become the greatest in the country."

Hugh Cabot, dean of the Medical school, criticized the present method whereby a student receives too much teaching during his first three years in the Medical school and not enough of actual common experience. He said that even the training received in the University hospital was of such a specialized nature as to leap over the fundamentals. Speaking on the subject "Where Do We Go From Here?" Dean Cabot said, "A clear problem faces the profession today because of the immense increase in the amount of basic knowledge. The effect is a strengthening of the basic sciences in the schools but the keeping of the student from seeing his goal. Graduates should be left with a better orientation. This can be accomplished by bringing men of broader practical experience to the hospital, who can improve themselves at the same time, and by sending students out for monthly periods with state practitioners and hospitals. Some form of the old apprentice system should be restored."

Armistice Day is passed and the World's War has been terminated for eight years. It's aftermath is still manifest, even though financiers and diplomats stress the debt feature. A spirit of resentment was rekindled by the following poem of Kipling:

THE VINEYARD

By Rudyard Kipling

(Referring to America's part in the World War)

At the eleventh hour he came,
But his wages were the same
As ours who all day long had trod
The winepress of the wrath of God.

Since his back had felt no load,
Virtue still in him abode;
So he swiftly made his own
Those lost spoils we had not won.

We went home, delivered thence,
Grudging him no recompense,
Till he portioned praise or blame
To our works before he came.

Till he showed us for our good—
Deaf to mirth and blind to scorn—
How we might have best withstood
Burdens that he had not borne!

Yes, it sure did stir everyone to resentment. We are glad of the following answer:

THE ANSWER

(To Rudyard Kipling)

At your eleventh hour of blood and flame
We gave your answer to a thankless call
By setting our backs with yours against the wall—
Paid with your shameless, small black words of blame,
True coinage of the ingrate, after all!

But let us build no more, in bickering rhyme,
Old, sick mendacities of Use and Time,
Nor with safe words our little hatreds wreak,
Skulking beneath the Literary Lie!
Only the unspeaking Dead have right to speak—
Unless to live, through such times, is to die!

Youth, born for life and song, we urged embark
Down to the songless, grim, unpitying Dark;
While in sure traps their shortened days were caught
We sang their battles, but we never fought!
Then, that such deaths of slaughtered youth may cease,
In Life's great name, let us make songs of peace!

—Harry Kemp.

Rock, studying the records of the Boston Lying in Hospital reports in the Boston Medical and Surgical Journal the following conclusions:

Most spontaneous miscarriages in man, as in lower animals, are caused by intrinsic disturbances in the fertilized ovum, or in the maternal organism, and not by the traditional extrinsic environmental accidents to the mother.

The causes of sterility and of miscarriage are probably, in large part, identical, the two conditions be-

ing, as Macomber and Reynolds have taught, but different degrees of diminished fertility. Causes of miscarriage should be studied in fine detail, which includes careful examination of both parents as well as the products of conception.

Diagnosis of miscarriage is usually easy. The important difficulty comes in discriminating between a merely threatened, and an inevitable miscarriage. Various criteria for judgment are given above.

The treatment of threatened miscarriage is deterrent. That for inevitable and incomplete miscarriage is provocative. Many authorities with their statistics are quoted—some advise great conservatism in treatment; others, extremely aggressive procedures. Analysis of 131 cases at the Boston Lying-In Hospital shows good results from a routine which permits conservative treatment of the case which is progressing properly by itself, and interference, before trouble is reached, in cases which are not progressing in the right direction. A septic uterus, except in cases of active and severe haemorrhage, should not be invaded.

Welz draws the following conclusions after a study of Caesarean sections performed in Detroit hospitals:

1. Abdominal caesarean section is performed too frequently.
2. Maternal mortality resulting from abdominal Caesarean section is too high.
3. Infantile mortality resulting from this operation is too high.
4. These bad results come from ignorance in the practice of obstetrics.
5. In order to improve these results the practice of obstetrics must be placed on a higher plane.
6. Each hospital must be held accountable to the public for the character of obstetrics done in it.
7. Each hospital must place safeguards against ill-advised obstetric operations, including abdominal sections.
8. The medical profession must understand the dangers of, as well as contra indications to, abdominal Caesarean section.
9. The public should be instructed that delivery through the natural birth passage is safer and better for mother and child.

We join in this warning and add that in many so called contracted pelves normal delivery can be accomplished. Those doing obstetrics may well review their records as to results. There is a tendency toward too frequent interference, middlesomeness and eagerness to resort to surgical proceedures. Give the patient time, women in labor have not yet attained the speed mania.

We concur in President Little's comment as to the direction along which our University Hospital and Medical school should expend effort. As Regent Sawyer stated, Post-Graduate courses must be forthcoming and if a new faculty is needed it should be created. We have contended for such a school for several years—a school where a doctor may go, spending a few days at short intervals but pursuing a definite course during the year. Opportunity also for a week, a month or several months of work, commulative in type and leading to definite ends. We are quite certain that the demand for such opportunities will be impressive just as soon as the announcement of the establishment of such a Post-Graduate school is made. Doctors perceive and feel the need of such a school. Michigan should meet that want and need. The Council's Committee will have a report upon this subject ready for submission at the January meeting.

Thoughts while visiting about: Doctor on train sounding off to group in smoking room on merits of the Stienach operation. Doctor's reception room revealing rare specimens of antique furniture—broken. Table littered with year old, dirty magazines, dust in corners. Doctor's desk a mass of pills, bottles, circulars, cigar stub, unopened journals and a dirty blotter. Bottles of urine in medicine closet. Soiled dressings and cotton in open waste basket. Speculums and female treatment instruments on window sill. Dirty pillow on examining table. This in contrast with a most modern, well-kept, neatly furnished offices of another doctor just across the street. A group of rooms labeled "Clinic." A registration desk where patients civic data is obtained as also fees. A lot of record cards supposedly containing histories but the recorder could never qualify in a history department—it's an art. Everybody from colored maid to chief robed in white—gowns are great concealors of physical anomalies. Odor of ozone from sputtering vibrators, diathermy and "lights" at so much per treatment and rare is the case that doesn't need some form of light or electric treatment—if properly farmed. Absence of array of cathartic pills—evidently they are *passe*—the thought persists from the old days that a good bowel movement often still achieves results. A suggestion for Clinics is a Dietary department to give much needed instructions as to how and what to eat. Oh well, sometimes we hope a new lay organization will be formed devoting its efforts to reforming doctors reception and consultation rooms. In the mean time you might call in the local painter, furniture and carpet men and spruce up your old dump. Office girls chewing gum, answering phone loud enough so all in hearing may know that the doctor is still at the hospital operating, or is in Athens in consultation, or is called to see Oudini. A manual on "office girl's" imparting advice on style, technic and effective methods should be forthcoming from a facile pen. A substitute picture for that of "The Doctor" should displace this time worn wall adorment of pristine glory. So too the advertising clock stating "The Doctor Is Out, Will Return At —" Guess these are sufficient thoughts for this time—hope they make some think and act—in the meantime hang up the holly wreath and try and get a Merry Christmas without too many socks, ties and 'kerchiefs and more paid up bills from dilatory patients.

Each issue of The Journal contains a department devoted to the work of our State Department of Health. The articles contained therein are not "fillers." They reflect the activity of our health officials and summarize the work, experiences and opinions of these experts. As such they convey reliable advice, that is of value to every doctor. In this issue you will find a discussion of particularily interesting topics. In addition, service that is available to you is enumerated. We direct your attention to this department urging that you utilize the information imparted in your daily practice.

We have no difference with Christian Science as a religion or as a moral censor. We do differ and resent the endeavors of this creed to extend its claims into the physical realm and decrying proven science, belie their assumed name, holding forth that there is no such a thing as disease. The blind spot in their mental eye and the narrowed position in spite of irrefutable facts has caused the loss of many a life—far greater than that occasioned by any war. And yet these propogandists continue their questionable methods to hoodwink the unthinking—but they're slipping and with a little more public education they will slip with a plunk.

Elsewhere you will find the report of the University Clinic. Read it. If you were not present you missed a real opportunity. Don't miss the next one.

Chicago is planning to celebrate its hundreth anniversary in 1933. An exposition is to centralize the event. It is announced that one unit of the exposition will be a temple of medicine embracing nine buildings costing $25,000,000. After the centennial these will be converted into a 4,800 bed hospital with every facility for research, post-graduate study and world education in health. The hospital to be managed by Chicago, Ill., Northwestern and Loyola Universities. This announcement provides food for reflection—ponder upon the influence such a hospital will wield.

The Maimonides Medical Society of Detroit has resumed the publication of its Bulletin under the editorship of Dr. N. E. Aronstam. Volume 3 No. 1, consists of 18 pages and cover, with timely announcements, program, personals and ads. Society Bulletins are to be encouraged while at the same time advice is tendered that the value of its reading contents increases with the omitting of clipped material. We shall watch this Bulletin with interest and tender our congratulations on it's resumption of publication. In addition to its objects of organization the society must not be unmindful of an added obligation to support the activities and purposes of the Wayne County Medical Society.

Hygeia—How are you aiding in causing an increased circulation in your community? The following letter points out the way:

November 16, 1926.

Secretary Michigan State
Medical Society,

Calhoun County Medical Society has just completed arrangements for placing a copy of "Hygeia" in every schoolroom in Calhoun County for the remainder of the school year at the society's expense. Note of this in the State Journal may stimulate action in other localities.

Sincerely,

Dr. C .S. Gorsline,
Chairman Committee in Charge.

Among Our Letters

NOTE—*This department is the open forum of our members. Your communications and discussions are welcomed. Anonymous communications cannot be accepted, though at times names may be omitted by the Editor. Personalities will not be printed and responsibility for opinions is not assumed. We invite your interest in this department. Address: The Editor, Journal, Michigan State Medical Society, Suite 1508, Grand Rapids National Bank Bldg, Grand Rapids, Mich.*

Editor of The Journal:

Beginning with the January issue The Radiological Review will be published monthly instead of bi-monthly and it will increase its number of pages from 32 to 64.

As you know, this is the only journal devoted to the progress of X-ray and Radium from the standpoint of the general practitioner and the specialist in branches other than Radiology.

We would appreciate a mention of this extended program for 1927 in your columns.

Thanking you for this co-operation, we are

Sincerely,

Radiological Review Publishing Co.
Robert H. Herrick,
Business Manager.

Editor of The Journal:

I have your letter of the 13th inst., regarding the appointments on committee to investigate charity services in the Michigan hospitals. I shall be pleased to accept this appointment.

Very truly yours,

W. M. Marshall,

FROM A NINETY-TWO-YEAR DOCTOR

Pitt S. Wilson, M. D., Secretary.

Muskegon, Mich.
Sept. 27, 1926.

Editor of The Journal:

I am in receipt of your favor of the 25th inst. informing me that at the State Medical Society meeting held at Lansing I was elected an Honorary Member of the Michigan State Medical Society.

May I, by your kindness, extend to the members of the State Medical Society my sincere thanks for their kindly thought of me and to say to them that I appreciate in no small degree that signal honor they have conferred by thus making me again a member of an association in which for nearly a quarter of a century I bore a humble part, becoming first identified with it in 1869 or 70, continuing my active membership till I changed my residence from Michigan to that in Florida.

Though I gave up the practice of my profession over 20 years ago I have never lost my interest in, or my love for "The Healing Art," and I would esteem it a rare privilege ,if the infirmities of age permitted to meet with you while in session.

At the age of nearly 92, I feel that I am in some measure a "left over" from a past age—a representative of a bygone generation. Since my retirement the science and practice of medicine and surgery have made most wonderful advancement, so that today most any man in my situation may well wonder just "where he is at."

Again thanking you for the honor you have conferred, and with all best wishes for each of you.

I am most sincerely, your associate,

John P. Stoddard, M. D.,

State News Notes

Dr. A. J. Warren of Mt. Clemens is up north on his annual venison hunt.

Dr. F. E. Thompson was re-elected chief of staff of St. Joseph, Mercy Hospital.

Dr. G. G. Roberson of Utica is recovering from a

gall bladder operation at St. Joseph's Hospital Mt. Clemens.

Dr. B. F. Green of Hillsdale attended the Montreal session of the College of Surgeons.

Dr. George L. LeFevre has been elected a trustee of the Muskegon County Sanatorium.

Dr. U. V. Portman of Cleveland addressed the Kent County Medical Society on Nov. 10.

The annual conference of secretaries, presidents and editors of State Societies will be held at the A. M. A. headquarters, Chicago on Nov. 19 and 20.

A free clinic for heart, tuberculosis and eye, ear, nose and throat has been opened by the Port Huron Health Department.

Dr. F. H. Bartlett of Pontiac has been appointed director of the Muskegon County Tuberculosis Sanatorium.

St. Mary's Hospital, Grand Rapids, opened its new addition on Oct. 15. New operating rooms, laboratories, maternity, wards and private rooms are provided for in a most modern manner.

The Executive Committee of the Council will meet with section officers on Dec. 9 at 6:30 p. m., Grand Rapids. The nature of our program for the 1927 meeting will be determined.

The Highland Park Hospital Detroit will hold an all day clinic on December 2. A banquet in the evening will be addressed by invited clinicians. Our members are invited.

"Word has been received from the Dermatological Research Laboratories that they appreciate the patronage given to the D. R. L. Arsphenamines by physicians in this state.

"These products have been advertised in this Journal for some time and it is gratifying to know that the readers have taken cognizance of the support of the advertisers. Also, that they are aware of the quality, safety and therapeutic efficiency of the Dermatological remedies for syphilis, which were the first to be made in this country and supplied to the physicians of America when the world war was in progress."

In recognition of his long service to the people of Battle Creek Dr. W. L. Godfrey was presented with a silver loving cup on his fiftieth anniversary as a practicing physician at the meeting of the Calhoun Medical Society in the Post Tavern. Dr. W. H. Haughey, a life long friend of Dr. Godfrey, made the presentation address.

In his talk Dr. Haughey told of having begun his own practice here in April 1888 and met Dr. Godfrey who already had won repute as a physician though he was still one of the younger doctors in the city at that time, having been practicing but 12 years. Dr. Haughey brought out the differences in the methods of practice then and now and the greater opportunities at that time to become acquainted with the real skill of associate physicians.

Modern methods of examinations such as X-ray photographs have practically meant the end of the older methods of holding consultations over a patient, Dr. Haughey said. "In earlier times a young doctor would call in an older physician on a case to pass approval on the work if only to satisfy the patient that his case was being handled in the proper way. As a young doctor I called on Dr. Godfrey many times as a consultant . In this manner Dr. Godfrey and I became fast friends."

Dr. Haughey concluded by citing many instances of long trips he had taken with Dr. Godfrey to meetings and conventions of medical men in all parts of the country. He told of having met Dr. Godfrey away from this city on other occasions at sessions of physicians where they had always talked and recounted their experiences.

Twenty-five members of the Society of Oral and Plastic Surgeons attended the clinic given by Dr. Chalmers Lyons at the University Hospital on Thursday, Nov. 11. The surgery of cleft palate and hare lip was demonstrated on this occasion.

They arrived in Grand Rapids on Friday morning and were given an operative clinic by Dr. Ferris N. Smith on Friday afternoon and Saturday morning. This surgery embraced many phases of intra-oral and facial reconstructive sugery.

There was a radical operation for a mucocele of the maxillary antrum, the repair of a traumatic saddle nose, the repair of a syphilitic saddle, using rib cartilage, removal of a large, mixed tumor of the soft palate, the repair of two cases of marked contracture of the neck, following burns. One was repaired with a tubed pedicle flap from the arm and the other with a free full thickness graft, with pressure dressing. Reconstruction of the mouth, following surgical contraction (carcinoma), the recovering of an upper arm with a pedicled flap, after removal of a hairy, melanotic nevus. The construction of an upper lip, following previous removal of carcinoma, a total reconstruction of the nose following removal for carcinoma, and the return of a forehead pedicle after reconstruction of a total nose.

On Saturday afternoon there was an academic session for discussion of plastic problems, and presentation of numerous patients showing all types of plastic reconstruction.

The visitors were as follows:

Dr. William Shearer—University of Nebraska, Omaha.

Dr. Claire Straith—Detroit, Mich.

Dr. S. L. McCurdy—Pittsburgh, Pa.

Dr. V. H. Kazanjian—Plastic Surgeon, Harvard University, Boston, Mass.

Dr. F. A. Figi—Mayo Clinic, Rochester, Minn.

Dr. L. M. S. Miner—Dean of Dental and Oral Surgery, Harvard University, Boston, Mass.

Dr. Harold Vaughn—Professor of Oral Surgery, Post-Graduate Hospital, New York.

Dr. Chalmers J. Lyons—Professor of Oral Surgery, University of Michigan, Ann Arbor.

Dr. Vilray P. Blair—Professor of Oral and Plastic Surgery, Washington University, St. Louis, Mo.

Dr. Fulton Risdon—Toronto, Ontario.

Dr. L. Schultz—Chicago, Ill.

Dr. H. S. Dunning—Professor of Oral Surgery, Columbia University, New York.

Dr. J. Eastman Sheehan—Professor of Plastic Surgery, Post-Graduate Hospital, New York.

Dr. Robert H. Ivy—Professor of Oral and Plastic Surgery, University of Pennsylvania, Philadelphia, Pa.

Dr. George M. Dorrance—University of Pennsylvania, Philadelphia, Pa.

Dr. F. B. Moorehead—Professor of Oral and Dental Surgery, Chicago, Ill.

Dr. M. I. Schamberg—New York City.

Dr. William H. G. Logan—Chicago, Ill.

Dr. Thomas L. Gilmer—Professor of Oral Surgery, Chicago, Ill.

Dr. Carl Waldron—Minneapolis, Minn.

A dinner to Colonel Angus McLean was given by the Faculty of the Detroit College of Medicine and Surgery at the Detroit Athletic club, Tuesday evening Oct. 19, 1926, on the occasion of the completion of 40 years active medical practice.

Invitations were sent to many physicians throughout the state and to foreign countries. Over 500 guests attended the dinner representing persons prominent in medical and social circles. Telegrams and cablegrams of congratulations were received by Dr. McLean from all parts of the United States and the world.

Messages and greetings were received from Sir Anthony Bowlby, London, England; Professor John C. Fraser, Edinburgh, Scotland; General Robert Duplessis, Dijon, France; Mr. M. Baudard, Prefect Cote D'Or, Dijon, France; Dr. Samuel Berger, Deaconess Hospital, Paris, France; Colonel Ermano Pazzi, Rome, Italy; Sir Berkeley Moynihan, Leeds, England; Dr. P. J. B. LeBlanc, Fairbanks, Alaska; Major A. H. Eber, Phillipine Islands; Dr. Edward Fish, Chee Fow, China; Dr. John R. Hardstaff, Australia; Dr. Harry Boyes, Tripoli, Syria; Dr. Arthur Tyler, Honolulu, Hawaii; Mr. Louis W. Haskell, Algiers, Africa; Professor Wilkie, Edinburgh, Scotland; Sir William Wheeler, Dublin, Ireland; Professor Edgard Furz, Brussels, Germany; Professor R. deJosselin deJong, Utrecht, Holland; Dr. Edward W. Archibald, Montreal; Professor Charles F. Martin, Dean of McGill University, Montreal; Dr. W. W. Chipman, President of American College of Surgeons, Montreal; Dr. Roscoe R. Graham, Toronto, Ontario; Dr. Robert E. McKechnie, Major General Merritt Ireland, U. S. Army, Washington, D. C.; Colonel Jefferson R. Kean, Washington, D. C.; Brigadier-General Walter D. McGaw, Washington, D. C.; Colonel Joseph F. Siler, Washington, D. C.; Admiral Edward R. Stitt, U. S. Navy, Washington, D. C.; Admiral C. T. Grayson, U. S. Navy, Washington, D. C.; Captain Robert Kennedy, U. S. Navy, Washington, D. C. Colonel Allan McGlaughlin, U. S. Health Service, Washington, D. C.; Dr. Searle Harris, Bimingham, Alabama; Dr. Graham E. Henson, Jacksonville, Florida; Dr. H. H. Scanlon, Iowa City, Iowa; Dr. James K. Smith, Texarkanna, Texas; Dr. George H. Evans, San Francisco, Cal.; Dr. Willard Stone, Pasadena, Cal.; Dr. Angus Kenney, Vancouver, B. C. Many doctors were present from Ohio, Kansas, Missouri, California and New York.

The toastmaster of the evening was Dr. James W. Inches. Among the speakers were: Dr. Andrew P. Biddle, Detroit; Dr. Don M. Campbell, Detroit; Dr. Hugh Cabot, Ann Arbor; Hon. John W. Smith, mayor of the city of Detroit; General Francis A. Winter, Washington, D. C.; Dr. Franklin H. Martin, Chicago, Ill.; Hon. Alfred J. Murphy, Detroit; Dr. Walter H. Sawyer, Regent University of Michigan; Allen Campbell, president of Board of Education, city of Detroit; Governor-Elect Fred W. Green, Ionia, Mich.

Congratulations and greetings for the anniversary were received from the Mayo, Crile, Searle Harris and other pominent clinics as well as fom the following hospitals: Highland Park Hospital, Providence Hospital, St. Joseph's Mercy Hospital, Evangelical Deaconess Hospital, St. Mary's Hospital, Grace Hospital, Wyandotte General Hospital, Detroit Welfare Commission-Receiving Hospital, Woman's Hospital, Shurly Hospital. All of which Dr. McLean has been directly or indirectly associated with. Congratulations were also received from Regan-Lide Post of Detroit and State Department of the American Legion.

After Dr. Franklin H. Martin's address on Research in which he expressed hope that the city of Detroit establish a Detroit Research Laboratory in connection with the Detroit College of Medicine and Surgery, which was also recommended by Mayor John W. Smith there were spontaneous contributions. Mr. Robert Oakman gave $50,000 half on condition that oral surgery be specialized; $25,000 by Colonel Edwin S. George and $10,000 by Base Hospital No. 17

A corporated foundation with a board of trustees to be appointed by the mayor is now being organized, the matter will then proceed. Several small contributions have been received since the first contributions were made.

A portrait of Dr. Angus McLean was presented by Mayor John W. Smith and accepted by Allan Campbell to be placed in the Detroit College of Medicine and Surgery. A large handsome bronze loving cup was given to Dr. McLean, which was presented by Governor-Elect Fred W. Green. The cup is embellished with silver and lined with gold, very beautifully inscribed: To Angus McLean, Physician, Surgeon, Research Worker, Soldier, Teacher and Gentleman, from his Friends on the Occasion of the Completion of 40 Years Active Medical Practice, October 19th, 1926.

TO DR. ANGUS McLEAN

By Anne Campbell

Oh, who can count the sick rooms he has brightened,
The many times he's calmed our tragic fears;
And who can tell the weary hearts he's lightened,
In forty years!

The bodies he has healed, the limbs he's strengthened,
The footsteps he has stayed from other spheres,
The minds that he has cleared, where shadows lengthened,
In forty years!

The pain that left upon his skill unfailing,
The old, who at his coming dried their tears,
The babies, at his touch, who stopped their wailing,
In forty years!

The record of his goodness is a treasure
That in the angel's Book of Life appears.
It's something that we humans could not measure
In forty years!

God bless and keep him in his high endeavor!
For him the hand of fellowship that cheers,
And joys so fine that they will fail him never
In forty years!

Our Society Business and Activities

HARVEY GEORGE SMITH
EXECUTIVE SECRETARY

NOTE: This Department will each month contain a discussion and report of our Society work and planned activities. Your interest and correspondence as to your problems is solicited.

BUSINESS ADMINISTRATION

The organization and business side of a County Medical Society are most important but of all activities these receive the least attention with most county organizations. This situation is, of course, the opposite of that found in business, industry, education and commerce. Organization is first established by industry before a cent can be spent. This shows where emphasis is placed by business. Without organization no superintendent or business manager could report progress. All recognize the fact that success must come through upward steps correlated and interlated so that the ultimate result at the end of each year is a measure of recorded accomplishment.

Before business attempts to enter any enterprise, there are long sessions of boards of directors, committee meetings with superintendents, reports, surveys, statistics. studies, analyses for the sole purpose of determining whether or not success can be attained and finally what steps and methods must be followed to insure a tangible result.

Contrast the plans and methods of business with that followed by a large per cent of County Medical Societies. The scientific programs are arranged with in a few days of the date of meetings. No special committee systematically studies the work ahead as does that one of business. There is little corelation unless by chance it has come. No study is established on the problems that face every society in its relationships to the community, the city, the county such problems as health education, physical examinations of school children, health status and its relation to business successes, charity and health, food and ill health, the county nurse and the medical profession and other similar problems.

The time has come for Medical Societies to cast overboard old processes and old methods. To make the business organization the major activity upon which all activities may be established. Officers should call special meeting for the one purpose of establishing a business regime which will net results and progress for each society. Until organization is established the years will pass on as of old with no special attainment, no true satisfaction on the part of members or officers and no standing of usefulness in the community. Nothing can be done until the membership appreciates the value of this change of attitude. A president of one society said recently, "the business basis is the most important part of our organization but as soon as the business activities are presented for discussion, the members rush for their offices." This month is the end of another year. Let it take with it as it passes on into history indifference to organization and methods. Begin the new year with organization, directed to solve problems and secure for the society, the membership and the community tangible results.

THE DOCTOR, THE HEALTH EDUCATOR

We have been doing a heap of talking about health education for the public—schools, Parent-Teacher associations, Luncheon Clubs, Womens Clubs in fact every unit of society. Lectures and discussions have been advocated are advocated and will always be advocated as valuable methods in giving information. In fact during the past year more than a hundred thousand people in Michigan have listened to lectures on health. There are thousands of others who have a smattering knowledge of the nature and value of Scientific Medicine. There are confirmed believers and there are those who make up a large group—the unbelievers. This latter group is still worried with the fears of the "black cat that crosses the homeward way," "the 13 guests at the dinner table," "the broken mirror," the "three lighted cigarets with one match," and endless numbers of other old fettishes. The task of discarding the old in manner and habit of life even in this civilized age is accompanied with the fear that the discard may have been made too early.

Fears are accompanied with lack of understanding, with lack of knowledge. Established facts are the opposing factors to so-

cialized and individual fears. They directly affect the community and the individual. Science deals with facts and the establishment of facts. Sciences advance, fears retard and maintain the primitive.

In the field of Scientific Medicine no one is more able or occupies a more influencing position in the establishment of facts than does the doctor. Daily he comes in contact with his patients, daily he has the opportunity to leave one vital fact with each patient. Daily he may demonstrate the established facts of his science. Daily he relieves the ill and councils the well. No better opportunity in education can be discovered than that which comes to the doctor. No better method in teaching has been established than that of interview and discussion, one person with another. We visit our intimate friends for council and advice, for information and instruction and we return to our bailiwick vitalised with knowledge, new enthusiasm and new accomplishments.

You, the 3,000 members of the Michigan State Medical Society become the true educators for your patients by establishing facts and dispelling fears and superstitions.

A COUNTY SOCIETY CALENDER

County medical Societies by virtue of the position they occupy are obligated to conduct an extensive program of activity which directly affects the membership of the Societies and indirectly the community. In order that the obligation of each society may be met and accomplishment recorded it is recommended that societies consider the activities and plans of work herewith attached, which cover the activities in the scientific field, physical examinations, public health education, and social and non-scientific activities for a period of one year.

COUNTY SOCIETY PROGRAMS AND ACTIVITIES

Scientific Section

Meetings and Subjects by Month

December—Pneumonia.
January—Obstetrics and Gynecology.
February—Infectious Diseases.
March—Fractures.
April—Pediatrics.
May—Cardio—Renal Diseases.
June—Gastro—Intestinal Diseases.
July—Vacation.
August—Vacation.
September—The Year's Progress in Medicine, Surgery, Obstetrics, Gynecology, Infectious Diseases.
October—Therapeutics, Drugs, Light, Diathermy, etc.
November—Eye, Ear, Nose and Throat Infections.

Physical Examination Section

January—Physical Examination month for all members.

Section in Public Health Education

1. Lectures in High Schools

January—Health Habits.
February—Our Daily Foods.
March—Pasteur.
April—Lister.
May—Accidents and First Aid. At Home and on Vacations.

2. Parent-Teachers Association and Women's Clubs

December—.....
January—Vitamines and Nutrition.
February—Pasteur.
October—Mental and Physical Health Habits.

3. Luncheon Clubs

January—Science—Basic.
February—Comparative Investments in the Sciences and Relationship to Progress.
March—The Individual Assets and Values.

Social and Informal Activities for Medical Professions

September or October—Smoker and Mixer.
July or August—Picnic. Featuring Golf Baseball, Quoits, Swimming, etc. and Beefsteak Roasts.

For and with Other Professions

April—Ministers, Educators, Nurses, Social Workers. Subject—Problem Cases.
February—Meeting with the Bar Associations. Subject—Crime. Where the Law and Science Co-ordinates.

Deaths

Dr. F. M. Gowdy of St. Joseph, Mich. died Nov. 12, 1926, after an illness of several months. He was 58 years old. Dr. Gowdy graduated from the University of Michigan in 1891 and returned to St. Joseph to practice. At the time of his death he was a member of the state board of health and an officer of the U. S. Army Medical Reserve Corps of the U. S. Army, in which he served during the World war. He was also a member of the Berrien County Medical Society and the Michigan State Medical Society.

Dr. James A. DeVore, 421 Clancy avenue, NE., Grand Rapids, died Friday Nov. 5. Dr. DeVore for the past 25 years conducted the DeVore Hospital and Sanatarium on Clancy avenue and though in ill health for the past two years continued with his work. He was born in Ithaca, N. Y. and graduated from the University of Cincinnati Medical school. He first practiced at Freeport, Mich., but later came to Grand Rapids and has been in practice nearly 40 years. He was a member of the American Medical Association, Kent County Medical Society, Michigan State Medical Society.

County Society News

HOUGHTON COUNTY

The Houghton County Medical Society held its regular monthly meeting at the Douglas House, Hough-

ton, Tuesday, Nov. 2, 1926. After reading of minutes and allowing of bills Dr. W. H. Dodge gave a very fine talk on Medical Ethics. This was discussed by all present.

Dr. Simon Tevin next read a paper on "Epigastric Hernia," this was fully discussed by those present.

Society then adjourned to lunch.

Respectfully,
G. C. STEWART, M. D.,
Secretary.

SHIAWASSEE COUNTY

The November meeting of the Shiawassee County Medical Society was held in Owosso at the city hall auditorium on Tuesday evening, Nov. 2.

Dr. R. Earle Smith, of Grand Rapids addressed the society on "The Treatment of Skin Diseases." The history varieties, etiology, differential diagnosis and treatment was well covered, and the whole was finely illustrated by colored slides. At the close a vote of thanks was tendered the doctor.

W. E. WARD,
Secretary-Treasurer.

BAY COUNTY

Wednesday evening, Oct. 20, the society gave a complimentary banquet commemorating the 50 years in the practice of medicine of Dr. John W. Hauxhurst. Eighty persons including the member's wives sat down to the banquet at the Wenona Hotel.

Dr. Hauxhurst gave an interesting account of his recent trip to New York, Panama, Havana and Alaska.

The society presented Dr. Hauxhurst with a silver water pitcher and Mrs. Hauxhurst with a floral tribute.

Dr. Hauxhurst, a graduate of the University of Michigan has practiced in Bay City continuously for the past 50 years.

GRACIOT-ISABELLA-CLARE COUNTY

The November meeting of the G.-I.-C. was held in the Height House, Alma, Thursday, Nov. 4. Twenty-three came to the supper. After all had done justice to the latter, Dr. Merrell Wells of Grand Rapids talked on "Pernicious Anemia and associated conditions." Everyone listened attentively to the doctors' able presentation of this subject, after which the doctor, very kindly answered many questions. On behalf of the society, President Graham thanked Dr. Wells for his instructive talk.

E. M. HIGHFIELD,
Secretary.

EATON COUNTY

The Eaton County Medical Society held its October meeting on Thursday, Oct. 28 in the offices of Dr. Don V. Hargrave, Eaton Rapids, Mich.

There were 10 members present and after a short business session we proceeded to the program of the evening.

Dr. Henry J. VandenBurg of Grand Rapids gave a very interesting talk on gall bladder diseases. He told of many practical points in the diagnosis of these diseases and by a round table discussion of the subject helped every one present to be a better understanding of these conditions.

Very truly yours,
H. J. PRALL,
Secretary.

GRAND TRAVERSE-LEELANAU CO.

The Grand Traverse-Leelanau County Medical Society held its November meeting Oct. 29, this date being arranged for the convenience of Dr. Reuben Peterson, of the University of Michigan, who was with us. Any time this grand (I won't say old) man comes from Ann Arbor, he can have any date, and all the dates, he wishes.

Dr. and Mrs. George F. Inch, of the State Hospital, were hosts of the society, serving a bountiful dinner at 6:30, after which Dr. Peterson, in his usual splendid manner, gave a real treat, dealing on Modern Obstetrics. Needless to say that Dr. Inch's entertainment and Dr. Peterson's paper were greatly appreciated by the 22 members who were present. It was late when we got home. Fact is, our meetings this year are so profitable, and our associations so congenial, that our getting together is a real pleasure, and we are never in a hurry to say "good night."

G. A. HOLLIDAY,
Secretary.

MACOMB COUNTY

The regular monthly meeting of the Macomb County Medical Society was held Nov. 1 at the Colonial Hotel, Mt. Clemens. There were 20 members present.

Luncheon was served at 12 o'clock—during this time the meeting was addressed by Dr. Poole of the State Department of Health on the subject of "Toxin Antitoxin." Dr. Poole traced the development of antitoxin and later toxin antitoxin from its early stages up to its perfected state. He also pointed out the effect the use of these remedies had on the morbidity and mortality rates in diphtheria.

Following luncheon a business meeting was held for a short time.

The minutes of the previous meeting were read and adopted. The application of Dr. Atkinson of New Baltimore for membership was referred to the membership committee for action.

The secretary was instructed to convey on behalf of the members of the society their sympathy and sincere wishes for a speedy recovery to Dr. G. O. Roberson of Utica in his recent illness.

The announcement was made of the next meeting to be held December 6th at which time the officers for the new year are to be elected.

Dr. John L. Cluster of Detroit then addressed the society—his topic being the "Common Diseases of the Heart."

The meeting closed with a rising vote of thanks to both speakers for their interesting and instructive papers.

Yours truly,
A. A. THOMPSON,
Secretary.

MUSKEGON COUNTY

The Muskegon County Medical Society met Oct. 15 with 21 members present. The advisability of availing ourselves of the service offered by the Physicians Rating Bureau of the Chamber of Commerce was dis-

cussed and an informal vote of those present showed 19 in favor and 2 undecided.

A request from our state secretary that a legislative committee be appointed resulted in the following committee being appointed by President Thornton:—Dr. George L. LaFevre, chairman; Dr. R. J. Harrington, Dr. F. N. Morford and Dr. Viggo Jenscn.

A communication from Olin West, secretary of the A. M. A. in re: Disaster Relief was read and favorably acted upon. The formation of the unit was left to the president and secretary.

A letter from Dr. Warnshuis informing us that Dr. Stoddard had been made an honorary member of the State Society was read, as also was Dr. Stoddard's letter of appreciation. A remarkable letter from a gentleman of his age. Dr. Stoddard's letter is enclosed. A letter from the secretary of the Minnesota State Society inquiring as to the attitude of our members toward medical schools their attached hospitals and public health, welfare and other free medical service organizations was read and the secretary instructed to reply that we "Are agin it."

On Oct. 20 the medics held a joint meeting with the Muskegon Bar Association at the Occidental Hotel. Following the banquet Dr. Henderson, director of the University Extension Bureau, spoke on "Keeping Up to the Times." All enjoyed the talk of Mr. Henderson. The lawyers were represented by Mr. Francis Lovelace who spoke on some angles of medical jurisprudence. This the medics enjoyed.

P. S. WILSON,
Secretary.

ST. CLAIR COUNTY

Meeting called to order by President Moffett at 7:45 p. m. The Seventh District Dental Society were invited to be present as guests of the society and the following members responded to our invitation: Drs. Myron, Getty, Swartz, Stevens and Bean. The following members of the Medical Society were in attendance: Drs. Attridge, Vroman, Moffett, Clancy, Smith, Ryerson, Heavenrich, Cooper Kesl, Ard, Callery, Burley, Windham, Wheeler, MacPherson and MacKcnzie.

The minutes of our meeting on Nov. 4, 1926, read and approved. Dr. Moffett appointed the following committee for Medical Relief in Disaster: Dr. Theo. Heavenrich, chairman, Dr. T. H. Cooper and Dr. A. L. Callery.

The invitation of Highland Park Physicians' club to attend their first annual clinic to be held on Dec. 2, 1926, at the General Hospital, Highland Park, was again read and 10 members pledged themselves to attend. A motion was made, seconded and carried moving ahead one day our next regular meeting in order to allow these members to attend the Highland Park Clinic.

President Moffett expressed pleasure in having some of the members of the Dental Society present and introduced the speaker of the evcning, Mr. Frank R. Schell, a member of St. Clair County Bar Association and a practicing lawyer of Port Huron, who addressed the subject on the general subject of Medical Jurisprudence. Mr. Schells' talk was vcry profitable to those in attendance and at its conclusion a thorough discussion took place almost everyone present asking one or more qucstions upon the subject. A rising vote of thanks was given the speaker following which the meeting adjourned at 10:40 p. m.

Respectfully,
G. M. KESL,
Secretary-Treasurer.

KENT COUNTY

The Kent County Medical Society has had two meetings in October as the opening of the fall season. The first meeting was addressed by Dr. A. R. Hufford of the Mayo Clinic on the subject "The Relation of Focal Infection to Peptic Ulcer." He detailed and illustrated with lantern slides the work of Dr. Rosenow and himself on this subject and reported their belief in the relationship between focal infections of streptococcus viridans and peptic ulcer.

The second meeting was addressed by Dr. C. F. Karshner of Grand Rapids on the subject "Rheumatic Heart Disease." This was one of the most comprehensive papers we have heard. He covered the subject so thoroughly and well that discussion is superfluous.

The Kent County Medical Society has directed its members to sever their connection with the local clinic for infant feeding. One year ago a clinic investigating committee was appointed for the purpose of investigating the free clinic situation in Grand Rapids particularly. This committe has collected a great mass of data not only about the local clinics but also about clinics over the United States, which they aim to use in further investigation during the coming year. One of their first recommendations was the severance of the connections with the Clinic for Infant Feeding because of their refusal to co-operate with the Kent County Medical Society and because of their persistent purpose to admit patients to the clinic who were able to pay their physician.

The free clinic situation is real and it is obligating for every physician interested in the future of medicine to take an active part in curbing the abuse of clinics. Interest in restricting the activities of clinics has become nation wide. Our own committee is very active in this matter and purposes to make many changes in the future for advantage to the medical profession and also the public.

H. T. CLAY,
Secretary.

KALAMAZOO COUNTY

The regular monthly meeting of the Kalamazoo Academy of Medicine was held in the rooms of the Academy Tuesday, Oct. 19, 1926 at 8 p. m.

The meeting was called to order by the President, Dr. McNair. Due to the fact that Dr. Peet desired to catch an early train the business meeting was postponed until after the scientific program.

Dr. William Huyser gave a very instructive and interesting article on Brain Injuries. The basis for the article was a series of cases cared for in the local hospitals by local men.

Dr. Max M. Peet then discussed the subject of Brain Injuries. Dr. Peet covered the subject very thoroughly and his talk was enjoyed by everyone.

The secretaries report was read as printed in the Bulletin and approved.

There were no committee reports.

Communications were read from the Commonwealth Fund and from the Michigan State Medical Society.

The Staff of the United States Veterans Hospital No. 19, Camp Custer extended an invitation to the society to be their guests for a dinner and meeting at the hospital at a future meeting.

Motion was made by Dr. Huyser seconded by the society that the invitation be accepted with thanks. Carried. The Program Committee was instructed to make the necessary arrangements. Motion was made by Dr. Jackson seconded and carried that the president

appoint a Legislative Committee to co-operate with the State Society.

Dr. Jackson spoke in favor of a local organization for medical relief in case of disaster as planned by the American Medical Association. A motion was made and carried that a committee be appointed by the chair to take charge of such an organization.

Dr. Ray T. Fuller was voted into active membership of the society. Dr. C. J. Swan as associate member. The names of Dr. V. H. Wells of Lawton and Dr. Hugo Aach were proposed for membership.

Adjournment.

GENESEE COUNTY

The following is a list of the Genesee County Medical Society meetings not reported to the Michigan State Medical Society.

Genesee County Medical Society met for noon luncheon, Hotel Dresden, May 12, 1926.

Speaker,Dr. Burr, Honorary Member of G. C. M. S. and M. S. M. S.

Subject—"The Advantages of Being Old."

Genesee County Medical Society met for noon luncheon, Hotel Dresden, May 26, 1926.

Speaker, Dr. C. Badgley, Professor of Orthopedic Surgery, University of Michigan Medical Department.

Subject—"The Treatment of Ununited Fractures."

Genesee County Medical Society met for noon luncheon, Hotel Dresden, Sept. 8, 1926. This was an exchange meeting with the Alpena County Medical Society.

Speaker, Dr. O'Donnell, Alpena, Michigan.

Subject—"Diagnosis and Treatment of Kidney Injuries."

Speaker, Dr. Newton, Alpena, Mich.

Subject—"Relation of Eye Infections of Focal Infections."

Genesee County Medical Society met for noon luncheon, Hotel Dresden, Sept. 22, 26.

Speaker, Dr. Bernbaum, Herman Kiefer Hospital, Detroit, Mich.

Subject—"Diphtheria."

Genesee County Medical Society met for noon luncheon, Hotel Dresden, Oct. 6, 1926.

Speaker, Dr. G. Kiefer Hospital, Detroit, Mich.

Subject—"Scarlet Fever."

Geneese County Medical Society met for noon luncheon, Hotel Dresden, Oct. 20, 1926.

Speaker, Dr. C. D. Camp, Department of Neurology, University of Michigan Medical Department.

Subject—"Neurosyphilis."

Genesee County Medical Society met for noon luncheon, Hotel Dresden, Nov. 3, 1926.

Speaker, Dr. M. Peet, Professor of brain and nerve surgery, University of Michigan Medical Department.

Subject—"Treatment of Skull Fractures with Associated Brain Injury."

G. J. CURRY,
Secretary.

ST. JOSEPH'S, BRANCH AND HILLSDALE COUNTY

The Joint Meeting of the Medical Societies of the counties of St. Joseph's, Branch and Hillsdale was held on Wednesday evening, Oct. 20 at the Knights of Pythias Hall at 6:30 p. m., the president, Dr. J. H. Johnson in the chair.

After a bountiful dinner served by the ladies of the K. of P., Dr. Sawyer, at the request of the president introduced the speaker of the evening, Dr. Max Peet of the University of Michigan.

Dr. Peet addressed the members present on—"The Treatment of Pain by Neurological Method." His address was of the greatest interest, leading into a realm which has heretofore been the despair alike of physician and patient.

He spoke, in part, of the successful treatment of tic douloureux by driving the sursory root leading to the gasserian ganglion, instead of removing the whole ganglion; a most formidable operation of the treatment of the branches of that ganglion by alcoholic injection before proceeding to the more radical operation of section and of the removal of part of the abdominal chain of the sympathetic systems for the relief of various forms of spastic paralysis of the lower extremities and even of some forms of gangrene of the feet.

Dr. Peet did not claim success for all these critical and extremely special operations, but when we reflect that they deal with some of the most frightful and hopeless conditions that torture suffering humanity, it is certainly inspiring to know that we can, through such men as Dr. Peet, hold out more than a ray of hope, even a good prospect of relief. Owing to the extremely advanced and technical nature of the address, it was not followed by extensive discussion, but Dr. Peet answered a number of questions in explanation of certain points brought out in the address. All the members present feel that they owe a debt of gratitude to Dr. Peet for his splendid address.

As there was no routine business, the names of Drs. Hamilton and Poppen of Reading were proposed for membership in the Hillsdale County Society and were unanimously accepted.

Adjourned.

D. W. FENTON,
Secretary.

CALHOUN COUNTY

The eighth regular meeting of the Calhoun County Medical Society was called to order in the convention room of the Parker Inn, Albion, at 8 p. m. following dinner.

The minutes of the previous meeting were approved and printed in the Bulletin.

The secretary read a communication from the State Society relative to the appointment of five members to act as a legislative committee. It was moved by Dr. Winslow that the president appoint two members to supplement the already existing committee of three. Carried. Dr. Winslow, Dr. Hafford, Sr., were appointed.

A second communication from the State Society was read by the secretary relative to perfecting a local organization to act in case of disaster. The plan for adopting medical relief in disaster was carried at a meeting of the House of Delegates recently held in Lansing. It was moved by Dr. Eggleston the chairman appoint a committee of three to work with the secretary and president in perfecting a local organization. Seconded and carried. Dr. Kingsley. Dr. Church and Dr. Thompson appointed.

Motion was made by Dr. Gorsline the secretary communicate with the chairman of the committee on Periodical Physical examinations and secure action. Carried.

Dr. Martin gave a report as chairman of the Publicity Committee. It was suggested that all members

desirous of making talks on Public Health matters before various local and county organizations, communicate with Dr. Martin.

Dr. Gorsline suggested the society place before each child of school age a copy of Hygeia. It was moved a committee be appointed to look into this matter, form estimates, and report at the next meeting. Carried. A further motion was made by Dr. Hafford, Sr., that the secretary incorporate this report in the next Bulletin. Carried. Dr. Gorsline appointed by the chairman to act as the committee.

The speaker, Dr. A. E. Halstead of Chicago was introduced by the president. His subject was "Bronchial Fistula" illustrated by slides.

Attendance at dinner and meeting 51.

The ninth regular meeting of the Calhoun County Medical Society was called to order in the Post Tavern dining room at 7:30 p. m. following dinner.

The minutes of the previous meeting were approved as printed in the Bulletin.

On behalf of the society, Dr. Haughey, Sr., presented Dr. Godfrey with a silver loving cup in recognition of his 50th anniversary as a practicing physician in Battle Creek.

Dr. Gorsline gave a report on the progress made in connection with the society's endeavor to place "Hlgeia" before each schoolroom in Calhoun County. On account of the large number of rural schools, it was suggested that some of these copies could be remailed. The total cost to the society in this way would come at approximately $325. Discussion by Drs. Kingsley, Church, Allen, Gallagher and Olsen. It was moved and supported that Dr. Gorsline, in conference with the president and secretary, proceed in this matter using his best judgment. Motion carried.

Dr. Holton reported for the committee on Periodical Physical Examinations. The president asked each member of the society to try and have a complete physical examination.

Dr. W. H. Haughey gave a rather lengthy report as chairman of the committee, relative to securing better co-operation with the superintendent of the poor in the matter of care of the poor and medical fees. His recommendation is the following: "That your committee be instructed to co-operate with other people or societies interested, try to get the prosecuting attorney to work up the case and legally present it with all the evidence obtainable at the January session of the board of supervisors and also continue our efforts to secure better treatment of our poor and better understanding between the board of supervisors and our members in Battle Creek and vicinity."

The following resolution was read by Dr. Rosenfeld: "We, the members of the Calhoun County Medical Society wish to make strong protest against the statement made by Fred Rector, county superintendent of poor for Battle Creek, before the county board of supervisors and citizens at the courthouse in Marshall on Monday, Oct. 5, to the effect that no doctor will take care of a poor patient unless payment of his bill is guaranteed in advance by the county.

"We consider this as maligning the profession as a whole and believe that said Mr. Rector should and must make a written retraction of this statement to this society before our next regular meeting." Discussion Drs. Winslow, Russell, Gallagher, VanCamp and Haughey. Dr. Gorsline made an amendment that the resolution be placed in the hands of our committee to be used as they see necessary. Vote on resolution as amended—carried.

President introduced the speaker, Dr. Kellogg Speed of Chicago who gave an exceedingly interesting, practical talk, illustrated with lantern slides on the subject of "Fractures."

L. E. VERITY,
Secretary.

ST. CLAIR COUNTY

I herewith submit report of several recent meetings of this society.

A regular meeting of St. Clair County Medical Society was held at the Hotel Harrington, Port Huron, Mich. on Oct. 7, 1926. Meeting called to order at 7:30 p. m. Dr. J. A. Attridge presiding in the absence of all officers. Members present, Drs. Attridge. Windham, Patterson, H. O. Brush, Callery, Heavenrich, O'Sullivan, McColl, Clancy, Cooper, Treadgold, Wheeler and Ryerson.

Dr. Ryerson assumed the chair upon his arrival and Dr. D. J. McColl acted as secretary.

Dr. Gertrude O'Sullivan health officer of the city of Port Huron, discussed the advisability of general immunization with toxin-antitoxin among the children of the city. She was instructed by the society to prepare suggestions in reference to the matter and to submit them at the next meeting of the society.

Dr. D. W. Patterson read a paper on, "Blood chemistry in kidney conditions" and Dr. H. O. Brush read a paper on, "Kidney Function." Both papers were well received and thoroughly discussed by the members present.

Meeting adjourned at 9 p. m.

A regular meeting of St. Clair County Medical Society was held at the Hotel Harrington, Port Huron, Michigan on Oct. 21, 1926. Meeting called to order at 7:50 p. m. by President Moffett with the following members in attendance: Drs. Cooper, Windham, Heavenrich, Patterson, Callery, Waters, Wheeler, Burley, Kesl, O'Sullivan and Bowden. Minutes of meetings of May 27 and Oct. 7, 1926 read and approved. An invitation from the Highland Park Physicians' club to attend the first annual clinic of that organization to be held at the Highland Park General Hospital on Dec. 2, 1926, was read and acted upon favorably. Most of those present agreeing to attend the clinic. A motion was made, supported and adopted authorizing the president to appoint a committee to perfect plans for medical relief of disaster. A discussion of appropriate newspaper publicity upon the subject of medical relief in disaster followed and President Moffett stated that he would obtain same if possible.

Dr. Moffett addressed the society upon the aims and purposes of the Committee on Public Health of the society. The minutes of this committee's meeting of Oct. 19, 1926 were read and approved by the society. A motion was made, seconded and adopted commending the work of this committee, particularly in addressing a letter to the Board of County Supervisors relative to the appropriation of funds with which to test all diary herds in St. Clair County for tuberculosis.

Dr. Heavenrich extended an invitation to the members of the society to meet with the Rotary club of Port Huron on Thursday, Oct. 28, 1926, to hear an address by Dr. R. M. Olin.

A discussion of goitre followed. Dr. Gertrude O'Sullivan, city health officer of Port Huron stated she believed the treatment of certain school children with iodine should be undertaken. The members of the society discussed the iodine content of the ordinary iodine table salt and whether sufficient iodine was contained therein to give individuals requiring iodine a

sufficient amount of this chemical. The secretary was instructed to write Dr. R. M. Olin relative to the matter of goitre and the prophylactic treatment of same by iodine.

The secretary was instructed to address a letter to the Secretary-Editor of the Michigan State Medical Society relative to what other county societies were doing upon the subject of organizing units for medical relief in disaster.

Dr. Gertrude O'Sullivan passed a copy of the proposed milk ordinance among the members present and also a copy of the latest milk analysis report. Dr. Sullivan also made a report covering the incidence of communicable diseases in the city of Port Huron for the month of September, 1926.

Dr. Moffett suggested the health officer prepare a summary of the work of examining the school children at the time the city schools opened early in September. This work was done by the members of the St. Clair County Medical Society without compensation at the request of Dr. O'Sullivan.

A general discussion of scarlet fever followed. The question of shortening the period of quarantine for this disease was debated. The question whether this disease was communicated from person to person during the stage of desquamation was brought up and several interesting cases were cited by Dr. George Waters in which the doctor contended infection during this stage had occurred. Dr. Heavenrich and Dr. Callery also discussed the advisability of shortening the period of quarantine in scarlet fever, inasmuch as a long quarantine oftimes worked a hardship upon certain families. Meeting adjourned at 9:30 p. m.

A regular meeting of St. Clair County Medical Society was held at the Hotel Harrington, Port Huron, Mich. on Nov. 4, 1926. Following a supper and social hour the meeting was called to order at 7:30 p. m. by President Moffett with the following members present: Drs. Clancy, Patterson, Ryerson, Lewis, Morris, Smith, Vroman, Burley, Attridge, Callery, McColl, Bowden, Kesl, Waters, Windham and Wheeler. The regular order of business was suspended and the president introduced the guests of the evening, Dr. R. S. Siddal and Dr. R. H. Durham, both members of the staff of the Henry Ford Hospital of Detroit.

Dr. Siddal addressed the society upon the subject, "Certain aspects of obstetrics." Owing to the fact that the secretary is not familiar with the intricacies of shorthand it is not possible to report fully upon these splendid papers. Just a few high points in each may be mentioned. Dr. Siddal stated that in his experience if occiput posterior presentations were handled conservatively the end result was favorable and the condition was not to be dreaded. He stated that at the Ford Hospital it was customary to use dilute tincture of iodine of a 1 per cent solution of mercurochrome to disinfect the vulva in confinement. That perineal aftercare should be only that required by personal cleanliness. In regard to diet in the toxemias of pregnancy the speaker stated that in his experience it was harmful to withhold protein food entirely. Speaking of ecclampsia he stated that this condition was not wholly a kidney affair but that other factors entered into its occurence. In general the speaker seemed to feel that attention to detail is worth while in obstetrics. The discussion of the paper of Dr. Siddal was opened by Dr. D. J. McColl, followed by several others and closed in the usual manner by Dr. Siddal.

Dr. R. H. Durham addressed the society upon the subject, "Treatment of Acute Lobar Pneumonia." It is very difficult in such a brief report as this to do justice to the excellent talk of this speaker. Dr. Durham said that the history of the treatment of this condition throughout the past ages is a very interesting subject because of the many discarded methods of treatment. Up to the year of 1910 the treatment was largely symptomatic. In that year the discovery was made that horse serum prepared from type one of the pneumococcus was effectual in the treatment of pneumonia due to type one pneumococcus. One of the earliest observations in the treatment of this condition was that the patient who was left alone did as well as one who was treated in a brisk manner. Prophylaxis of pneumonia has made great advances in the past decade. The avoidance of overcrowding in poorly ventilated places and the close contact with those suffering with conditions of the upper respiratory tract has done much to prevent pneumonia.

Polyvalent vaccines, used in South Africa, have reduced the mortality of pneumonia in that continent. This is especially true of type one infections, the incidents of which showed a great decline. Vaccine therapy in the United States for the prevention of pneumonia have not been entirely successful.

The use of type one serum in the treatment of type one pneumonia is a rational proceedure. After testing the patient for sensitivity to horse serum by the injection of one c.c. of the serum, 50 c.c. is given intravenously, this is followed in several hours by 200 c.c. and this in turn by injections of 100 c.c. at intervals of four hours. The use of antibody solutions is effectual in treatment of pneumonia but is, unfortunately, followed by sharp reactions.

Regarding the use of drugs in pneumonia, Quinine, recently has come into vogue. This drug has a bactericidal effect upon the specific organisms as well as a neutralizing effect upon their toxins. Neumoquin base has come into widespread use in the United States and apparently is useful.

The symptomatic treatment of pneumonia in the absence of any known specific drug must be relied upon to combat the disease. Nursing is an important factor. All possible rest is to be secured for the patient. Fresh air and a liquid nourishing diet are indicated. Elimination must be secured but not drastic catharsis. Hydrotherapy must be relied upon to lower excessive fever and to keep skin free. Baths at a temperature of 68 to 70 degrees F. may be given a short intervals while the temperature remains over 102.5 degrees F. Oxygen continues in use at the hospitals as a potent aid in anoxemia. All of the larger clinics believe this agent is efficacious. Inasmuch as circulatory failure is the great cause of mortality in this disease, the heart must be supported as soon as any sign of heart failure is observed. In empyema prompt drainage, either medical or surgical is indicated. In the minds of the speaker the former offers as much as the latter. Aspiration of pus followed by injection of a solution of gentian violet at repeated intervals offers as much relief as surgical drainage.

The discussion was opened by Dr. A. L. Callery, followed by Dr. C. C. Clancy and others. Dr. Durham closed his talk in the usual manner.

Dr. J. J. Moffett, president, thanked the guests for their excellent talks and Dr. C. C. Clancy added a word of appreciation and moved a rising vote of thanks to be extended them by the society which was unanimously adopted. The meeting adjourned at 10 p. m.

Respectfully,

GEORGE H. KESL,

Secretary-Treasurer.

Among the Books

A Review and Frank Appraisal of Medical Books That are Proffered to the Profession by Publishers.

HOW WE BECOME PERSONALITIES—E. H. Williams, M. D. Bobbs-Merrill Co., Indianapolis.

This purports to be a non-technical discussion of endoctrinology for lay education. The author in his introduction expresses the following sentiment: "the three most important subjects before the public are aviation, the radio and glands." That sentiment or author's view seemingly governed him in the preparation of the contents. In our opinion he has bowed to woe popularity and sacrificed if not really harmed scientific understanding by the lay man of this subject of the endoctrines. There are, however some facts well put but these are negative by discussing incidents, assumptions and theories not yet established and implying that they are facts by inserting clinical illustrations of isolated cases to substantiate his nebulous assumptions. It is regretable that such a book is made available. Had the author simply imparted known facts, quit and concluded with the statement that this is all we now know, a book worth while would have resulted. The price is $3.

GENERAL INDEX VOLUME OF THE COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION—1884 to 1925 inclusive. Octavo volume of 227 pages. 1926. Cloth, $5 net. W. B. Saunders Company, Philadelphia and London.

THE SURGICAL CLINICS OF NORTH AMERICA—(Issued serially, one number every other month.) Volume VI, Number IV (Mayo Clinic Number—October, 1926.) 274 pages with 91 illustrations. Per clinic year (February 1926 to December, 1926.) Paper, $12; Cloth, $16 net. W. B. Saunders Company, Philadelphia and London.

HUMAN PATHOLOGY—Howard T. Karsner, M. D., Western Reserve University. Cloth, 979 pp. illustrated. J. B. Lippincott Co., Philadelphia. Price $10.

The history of pathology shows a gradual evolution from a subject based almost entirely on morphology to one so comprehensive that as H. R. Dean says, "to the pathologist—all medical things are pathology." From this point of view clinical medicine is applied pathology. At any rate, pathology is no longer merely the study of morbid form, although no evolution or development can divorce from it the fundamental importance of pathological anatomy. The purpose of this book is to present the morphological alterations incident to disease, in the light of modern views as to their functional significance. The subject matter is confined to human pathology, since the work is designed for students and practitioners of medicine, but general biology has been called upon to furnish data relevant to the origin, course and natural history of disease as it affects man. The features of morbid anatomy and histology are studied objectively and are looked upon as established facts. At the present time, explanations and interpretations of its phenomena are often hypothetical and the attempt is made in the discussions to distinguish clearly between fact and theory. A working knowledge of normal anatomy and physiology and of bacteriology is prerequisite to a comprehension of pathology. These subjects are correlated with the processes and products of disease and, with the more important topics, the whole concept is employed as a basis for a brief introduction to the clinic. In summary this is a textbook of pathological anatomy and histology, related to the broader functional aspects of disease.

A textbook is only an introduction to the essentials of a subject. References may be given to the literature, but, in view of the rapid advances of biological and medical research, only by observation, investigation and well directed reading can the subject matter be kept abreast of the times. An important part of education is acquaintance with the names of those who have furnished its heritage. In the earlier chapters the names of investigators are given in the text infrequently and the student can get the references from the list at the end of each chapter. Later, however, as greater familiarity with the subject is assumed, the names are inserted more freely. In so far as possible references are made to journals easily accessible and in the English language. The bibliography is in no sense complete, but is so selected that by its use an introduction to the literature of pathology may be gained. The mode of reference is in accord with that of the American Medical Association.

The conventional division into general and special pathology has been adopted as the result of a long teaching experience. It is believed that this arrangement is in harmony with the position of pathology in the medical curriculum and best serves to present the subject as an introduction to, and a basis for, the clinical branches. For the advanced student and the practitioner it affords convenience of reference.

At the beginning of each chapter in general pathology the factual material is arranged in tabular form so as to give each topic its relative associations in the entire subject. This is regarded as of distinct pedagogic importance and in our experience has established its value. It may also serve as the basis of the problem method in the teaching of pathology, but before problems can be set it seems essential to provide a background of major and minor premises in the mind of the student.

Many of the illustrations were made under the direction of Dr. Simon Flexner for a book on pathology which he proposed to write. Manifold duties prevented him for completing a manuscript and the illustrations have been turned over to the author, who cordially acknowledges his gratitude. Thanks are due the Surgeon General of the Army and Major James F. Coupal for the us of photographs made at the Army Medical Museum, Washington, D. C. Other illustrations have been made from a rich material provided by association with several hospitals in this and other cities. The entire list of illustrations has been carefully selected and limited. Their purpose is to clarify the text rather than to provide a pictorial atlas.

PRINCIPLES AND PRACTICE OF CHEMOTHERAPY —With special reference to the specific and general Treatment of Syphilis. By John A. Kolmer, M. D., Dr. P. H., professor of pathology and bacteriology in the Graduate School of Medicine, University of Pennsylvania. 1,106 pages with 82 illustrations. 1926. Cloth $12 net. W. B. Saunders Company, Philadelphia and London.

Here we are confronted with a new contribution to syphilology by an author who has long commanded our respect by reason of his professional attainments and his text on immunity and infection and specific therapy. The task of preparing this text has not been a light one, the result recompenses the effort for it has accomplished the completion of an authoritative book. We are deeply impressed with its completeness, its detailed pertinent discussions of essential factors, its diagnostic proceedures and the comprehensive advice as to treatment which stresses thoroughness. A text meriting acquisition by every doctor.

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